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ABSTRACT

The practices and perceptions of a shared planning team decision-making model and the effects on student achievement and attendance are examined in this study. Survey results, test scores, and background data on schools were utilized to analyze the relationships among the degree of shared decision-making and planning effectiveness ratings, student attendance, and mathematics and reading achievement to compare participant perceptions of the model and to determine the strength of predictor variables. A questionnaire was administered to a sample of 242 elementary and high school teachers, principals, and assistant principals in a larger urban school district (Chicago, Illinois), which yielded an approximate 75 percent response rate. Seventy-two percent of the respondents were teachers. Findings indicate that schools that ranked midrange on a shared decision-making index made greater gains in student mathematics and reading attendance than did higher or lower ranking schools. Shared decision-making was not found to be a significant predictor of student achievement and attendance; however, the percent of low income students was a powerful predictor. Higher ranking schools were more likely to have planning teams and more comprehensive curricula and to report improved communication and morale. Although current school-based management encourages increased shared decision-making, more participation may not be effective. Contingency theory is therefore useful in predicting the impact of planning models on student outcomes. An extensive bibliography, statistical tables, and a copy of the questionnaire are included. (LMI)

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Shared Decision Making in Local School Planning:

An Urban School System's Experience

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Abstract

A study of planning in a large urban district showed that those schools midrange on a shared decision making index made greater gains in achievement and attendance than schools ranking higher or lower. Schools low on the index never performed best. Percent of low-income students was a powerful predictor. Higher ranking elementary schools were more likely to have planning teams, cover more topics, and report increased communication. Higher ranking high schools set more realistic objectives. Although current school-based management encourages more shared decision making, more may not be better. Contingency theory may identify the optimal model to impact student outcomes.

Contents

Page

Abstract

Background of the Study.....1

Literature Review

What is Shared Decision Making?.....1
Views of Educational Administration as It Relates to Decision Making.....2
Contingency Models of Leadership and Decision Making.....3
Recent Findings Regarding Shared Decision Making:
(Advantages and Disadvantages).....6

Design of the Study, Questionnaires, and Sampling Procedures.....9

Methods of Data Analysis.....9

Results--Part One

Description of Planning Activities.....10
Overall Perceptions.....11
Elementary and High School Comparisons.....11
The Index of Shared Decision Making.....12

Results--Part Two--Differences by Shared Decision Making Group

Enrollment.....16
Percent of Low-Income Students.....17
Elementary School Achievement.....18
High School Achievement.....20
Student Attendance.....22

Analysis of Variance.....24

Regression Analysis.....25

Discussion.....28

Summary.....31

Conclusions.....33

Appendix.....1-1

Involving a broad spectrum of persons in shared decision making is a current focus of school reform efforts. The expectation of the model from the management point of view is that greater team planning and sharing will result in greater productivity in the form of improvements on school objectives. The purpose of this paper is to compare the practices and perceptions of a shared planning team decision-making model in the elementary and high schools of a large urban school system, and to show how the model relates to student achievement and attendance outcomes. Utilizing questionnaire results, test scores, and background data on schools, this study will: (1) identify the planning activities that are highly correlated with shared decision making; (2) ascertain the relationships between the degree of shared decision making and planning effectiveness ratings; (3) ascertain the relationship between the degree of shared decision making in the local school and the accomplishment of systemwide objectives in the areas of reading and mathematics achievement and improvement of student attendance (Did those schools that utilized the shared planning model to a great extent show greater improvement than those that used the model to a lesser extent?); (4) compare perceptions of the planning model as expressed by participants of varying position and school level; and (5) determine the strength of predictor variables: school size, percent of low income students, shared decision group rating, and attendance on the dependent outcome variables (reading and mathematics achievement, attendance).

Background of the Study

Bass (1981) notes that research regarding the effectiveness of participative decision making on follower performance in the business world has resulted in mixed findings. Studies regarding the quality of decisions favors a participatory approach, but overall measurements of production in business do not reveal consistent trends.

As Imber et al. (1980) state: "Research that directly addresses the relationship between degree of teacher decision-making and student outcome is almost nonexistent."

The evolution of school planning in a large urban school district is exemplified in the local school planning process of the Chicago Public Schools. Prior to 1981, principals attended administrative academies which served as forums for the examination of systemwide objectives, their translation into local school objectives, and the formulation of plans for goal accomplishment. This model has changed from an administrator focus in planning to one based on input from administrators and lead teachers (the administrative academies of 1981-1984) to the Institute for School Planning models of 1985-87 involving administration, lead teachers, other teaching staff, career service personnel, and parents. In the Chicago example we see a transition to a "shared decision making model."

Literature Review

What is Shared Decision Making?

Many authors have analyzed decision making and have attempted to provide definition to this process. The following are some thoughts on decision making as well as the nature of shared or participative decision making.

Barnard (1938) stated that "the processes of decision are largely techniques for narrowing choice." Simon (1960) divides the process into three steps: intelligence activity, design activity, and choice activity. Essentially this involves determining the need for a design, developing possible choices to resolve the problem, and selecting the activity from the choices available.

Stufflebeam et al. discusses decision making as a four-stage process: (1) awareness that there is a need for a decision, (2) designing a situation, (3) selecting the alternative, and (4) taking action in terms of the identified alternative. Decisions related to education may be categorized as those related to intended goals, proposed procedures, attainment (goal accomplishment), and procedures in use. Hence, the administrator must become aware of the need for a decision, determine the available information, and project the degree of change that will result. When this information is determined, the administrator selects a decision model and determines the category of decision. Finally, the process requires implementation and evaluation. Decision making is problem solving, determination of the discrepancies between what is and what should be and determination of ways to mediate between the two.

Singer (1974) has noted four areas of consideration when classifying types of participative decision making: (1) Participation must be viewed in terms of group and individual aspects. While most view participative decision making as a team process, some feel that it involves individual freedom of expression. (2) Shared decision making must consider both the objective and psychological participation. Vroom (1964) reports the importance of the individual's perceived influence in the decision making process. Lowin (1968) focuses on the importance of actual participation as the objective. (3) Pseudo-participation and genuine participation form the third area of consideration. Pseudo-participation has the goal of making participants feel that they are useful and reducing resistance to authority. Genuine participation, on the other hand, focuses on the effectiveness of the process. (4) The last issue focuses on the varieties and degrees of sharing in the decision making process.

Views of Educational Administration as It Relates to Decision Making

Kimbrough and Nunnery (1981), in their text Educational Administration, state that many theorists view administration and decision making as closely related areas.

> Simon (1950) states "If any theory is involved, it is that decision-making is the heart of administration, and that the vocabulary of administration theory must be derived from the logic and psychology of human choice . . . The task of deciding pervades the entire administrative organization quite as much as the task of doing--indeed, it is integrally tied up with the latter. A general theory of administration must include principles of organization that will insure correct decision-making, just as it must include principles that will insure effective action."

Griffiths (1959) advocates decision making as the central administrative function. He espoused four assumptions regarding administration:

> 1. Administration is a generalized type of behavior to be found in all human organizations . . . . 2. Administration is the process of directing and controlling life in a social organization . . . . 3. The specific function of administration is to develop and regulate the decision-making process in the most effective manner possible . . . . 4. The administrator works with groups or with individuals with a group referent, not with individuals as such.

Thus one can view educational administration theory as the attempt to explain the complexities of the decision-making process involved in controlling, communicating, directing, coordinating, and reappraising life in the social organization known as school.

Contingency Models of Leadership and Decision-Making

During the behavioral science and systems theory periods of administrative theory (1950 to the present), the dimensions of leadership have been a focus for investigation as well as its refinement into contingency theory. Contingency theory helps to explain the complexities of decision making. Leadership theory proposed two primary dimensions of leadership style (task orientation or TO and relations orientation, RO).

Blake and Mouton (1964) proposed the managerial grid model. The horizontal axis of their grid is identified as concern for production, while the vertical axis represents concern for people. The scale for each of these factors ranges from 1 to 9. A total of 81 different management styles is possible. For example, a 1.9 management style is characterized by a high concern for people and a low concern for production. The managerial grid system is considered to be a normative theory since it advocates the style rated 9.9--high concern for production and high concern for people--as the one best leadership style.

Reddin (1970) advocates a more descriptive theory of leadership--the 3-D theory, in which there is no one best style. The effectiveness of the style is dependent upon the situation. Four leadership styles are defined by the task orientation (TO) and relations orientation (RO) dimensions. The high RO-low TO leader is viewed as related, the low RO-low TO individual as separated, the low TO-low RO individual as dedicated, and the high TO-high RO leader as integrated. When used appropriately, the integrated leader is viewed as an executive, the separated leader is viewed as a bureaucrat, the dedicated individual becomes the benevolent autocrat, and the related person is viewed as a developer. When used inappropriately, the integrated leader becomes a compromiser, the separated person is a deserter, the dedicated leader is an autocrat, and the related leader is viewed as a missionary.

During the early 1970s, Fiedler et al. developed the contingency theory of leadership. This theory predicts that both task-oriented and relations-oriented leaders can be effective in situations that are appropriate to and support their leadership style. Fiedler feels that the style of a leader is a given and hence the tasks and situations should accommodate leadership styles

as opposed to the leader's changing styles to fit the situation. Three dimensions are considered in this model: leader-member relations are classified as good, moderate, or poor; task structure as structured or unstructured; and leader position power as strong or weak. The contingency model indicates that task-oriented leaders perform best in situations that provide them with either strong or weak influence, whereas the relations-oriented leader performs best in the intermediate situation.

The Hersey and Blanchard contingency model adds another dimension to the examination of effective leadership. These authors focus on matching the leadership style to the maturity level of the followers. Once again leadership is defined along the dimensions of task orientation and relations orientation. The maturity level of the followers proceeds along a continuum ranging from very immature to very mature. A more participatory approach to leadership is espoused as the maturity level of the followers increases. Participatory leadership is characterized by a high relations orientation. Leadership is characterized as telling, selling, participating, and delegating. The very immature inexperienced follower would require a very directive structured (high TO-low RO) approach or "telling." The very mature experienced employee, on the other hand, could be delegated the task. The leader would provide support and use indirect leadership (a low TO-high RO configuration.)

The discussion thus far has illustrated the importance of decision making to administration, and how the concept of administration has evolved from a one-dimensional task orientation to consideration of other variables such as situation and employee maturity. Other factors, however, should also be considered.

If a leader had mature employees, should he/she delegate decisions in all situations to the employees? Tannenbaum and Schmidt (1957) considered these very issues in their theory of the "Zone of Indifference." These authors postulate that when the context of the decision making is of little or no concern to the teacher (when it is in the zone of indifference) a more task-oriented approach from the leaders is appropriate. As the focus of decision making approximates those areas that most directly impact on the teacher, the zone of indifference is likely to decrease. Sergiovanni (1988) illustrates how competency, maturity, and commitment levels of teachers relate to this construct. "The more competent teachers are, given a particular set of problems or tasks, the more appropriate are related and integrated styles. The less competent teachers are, given a set of problems and tasks, the more appropriate is the dedicated style."

Vroom (1975) emphasizes the degree of teacher participation in decision making in his contingency theory of leadership. Five decision-making styles are identified. The effectiveness of the style is dependent on the situation. The leader would determine the best decision style based on the answers to eight questions:

1. Is there a quality requirement such that one solution is likely to be more rational than another?

2. Do I have sufficient information to make a high quality decision?

3. Is the problem structured?

4. Is acceptance of decision by subordinates critical to effective implementation?

5. If I were to make the decision by myself, it is reasonably certain that it would be accepted by my subordinates?

6. Do subordinates share the organizational goals to be attained in solving the problem?

7. Is conflict among subordinates likely in preferred solutions?

8. Do subordinates have sufficient information to make a high quality decision?

Contingent upon the responses to the questions indicated above the leader would follow different roads on the decision tree. The five alternative decision styles are described below.

1. The leader resolves a problem or makes the decision utilizing the information available.

2. The leader obtains essential information from the followers and decides on the solution to the problem utilizing the information. The leader does not necessarily inform the followers about the problem while obtaining information

3. The leader shares the problems with relevant followers individually, obtaining their ideas and suggestions without bringing the members together as a group. The leader may or may not be influenced by the follower input.

4. The leader shares the problem with the followers as a group. The leader listens to ideas and suggestions and makes a decision which may or may not reflect the follower input.

5. The leader shares the problem with the followers as a group. Together they generate and evaluate alternatives and strive for agreement on problem solution. The leader is willing to accept and implement any solution that has group support.

Each path on the decision tree results in a different configuration of decision making. In some cases more than one style is feasible, so the leader must select the optimal style for his/her situation. A total of eighteen different configurations is possible. Each decision style is in ascending order of the time required for implementation and in descending order in terms of potential development of the follower. Hence, decision style 1 is most efficient in terms of time constraints, but offers the least in the area of teachers.

In the preceding examples, we see attempts to explain the complexities of the decision-making process. In the section to follow, the focus will be on recent findings regarding this aspect of school administration.

Recent Findings Regarding Shared Decision Making:
(Advantages and Disadvantages)

Robinson (1976) highlights four major findings from studies of teacher participation in school decision making:

> Teachers' preferred level of involvement in school decision-making is in most cases greater than their actual level of involvement.
>
> Teachers' desires for participation in decision-making vary from decisional area to decisional area.
>
> Increased teacher involvement in school decision-making produces positive consequences both for the individual teacher (e.g., higher level of job satisfaction) and for the school organization (e.g., increased innovativeness).
>
> The desire for involvement in decision-making on the part of teachers is related to certain personal and positional characteristics of teachers.

Sheely (1970) reported the following regarding teacher participation in shared decision making:

> The amount of participation as perceived by teachers is not commensurate with the amount of participation desired. In most cases there are but two or three areas out of a total of eleven to twenty-five where actual and desired participation are similar and in most cases the difference is ten percent or more.
>
> When data from board members, administrators, and teachers regarding the level of participation are compared, it is found that board members and administrators consistently perceive a higher level of teacher participation than do teachers themselves.
>
> Teachers generally recommend that participation should be increased greatly.
>
> Both administrators and teachers are in agreement that full teacher participation exists to the greatest extent in these areas: grievances, teacher welfare, application of curriculum, assembly programs, and textbook selection.
>
> Teachers indicate only a mild interest in participating in these areas: transportation, census, cafeteria, attendance, supervision of instruction, operation and maintenance of school buildings, and financial security, purchasing and storage and delivery.

Increased teacher satisfaction has often been reported as a beneficial outcome of participative decision making--see Alutto and Belasco (1972), Sparkes (1981), and Hoy and Miskel (1982). William A. Neidt (1987) studied the factors contributing to teacher satisfaction with shared decision making at the high school level. He examined the effects of knowledge and complexity of the topic, degree of influence and involvement, expected and unexpected rewards, implementation, and attitudes toward teaching on general satisfaction

with shared decision making and specific satisfaction with particular shared decision making experiences. Specific individual teacher satisfaction was explained to the greatest degree by the factors of benefit to self, self-perception of influence, implementation of the decision, and benefit to the school.

Among the advantages Seashore and Abt Associates (1981) attribute to shared group decision making are: "improved staff morale, sense of efficacy, sense of enhanced communication and articulation within and across grade levels, and professional development."

Additional support comes from Herzberg's studies in which achievement, responsibility, and advancement serves as motivators. Argyris' theories would also support the importance of shared decision making to improved self-concept of the participants. He hypothesizes that most human problems in organizations are the results of forcing staff into submissive and dependent roles. This prohibits self-actualization for employees and works against the goals of the institution.

Finally, McGregor's Theory Y posits that the theory Y administrator views him/herself as a developer of the potential of his/her followers. He/she views the employee as intrinsically good and rewards personal growth exemplified by the employee. Activities such as participative decision making are seen as contributing to personal growth and productivity.

The improved quality of the decisions is another benefit that has been reported to arise from shared decision making--see Griffiths (1977), Sparkes (1981), and Snyder (1983). Another benefit cited in the literature is that of improved climate and teacher morale--see Griffiths (1977) and Hoy and Miskel (1982).

Harrison (1981) studied the impact of decision making on administrator-subordinate communication behavior. Results of her study indicated that: the subordinates' perceptions of participation were associated with higher levels of information receipt from and transmission to administrators and also higher levels of interaction. Supervisors' perceptions did not match subordinate perceptions. The subordinates' perceptions were most strongly associated with trust in the administrators and the perceived team building on the part of the administrator. High participation groups were characterized by significantly higher levels of team building on the part of supervisors, subordinate trust of the administrators, and satisfaction with the administrator. Other important factors included the receipt of information from the supervisor, and the subordinate's desire for interaction with the administrator. A feeling of ownership among the decision making participants, and better acceptance of the decisions has also been reported by Sparkes (1981) and Hoy and Miskel (1982).

In summary, advantages of shared decision making include improved morale, increased likelihood that the follower will accept the decision, improved cooperation between administration and the subordinates, and improved adaptability to changes that might result from the decisions. Tannenbaum hypothesizes that an administrator's power is never lost when shared with his/her subordinates. It is rather increased by improved relationships within the organization.

Disadvantages of shared decision making in the literature focus on increased time demands and risk of disfavor among colleagues--see Duke et al. (1980). Strauss (1964) reported four negative outcomes resulting from participative decision making: (1) alienation of the participant when his/her ideas are rejected by the group, (2) an expectation on the part of participants that they will be frequent participants in future decision making, (3) the time-cost of the shared decision making process, and (4) the possible alienation of the group if their decisions are rejected by the administration.

Erdeljac (1984) cites Bartunek and Keys (1979) in noting that teachers want to participate when their input contributes to positive decisions, but that when teachers have trust in the administration to formulate decisions in their favor they want little participation in the decision-making process. Further problems may arise when teachers participate for the wrong reasons, not because they wish to participate in the generation of an optimal problem solution, but rather because they have no better options at the particular point in time or because they like the "symbolic outcomes" accrued from participation. A caution is given that teachers may view the process as an end in and of itself and ignore the needs dictated by the proposed implementations for problem resolution.

Blumberg (1969) reports that participative decision making can result in role confusion and conflict for both principals and teachers. Teachers may feel that additional duties are being thrust upon them and that they are required to do the administrator's job as well. Staff may become distrustful of the administrators in the role of empathetic listener. Problems can also arise if participants are not prepared for the new tasks required through training.

Lapposa (1971) noted that as decisional teams and ad hoc groups got larger (five or more people) they appeared to disagree with less antagonism than ad hoc groups. Team membership, the experience of the team members in the organization, and the size of the group, as well as the procedures involved in the decisional process, can impact on the success of the exercise.

One must also consider the possibility that, while administration may be philosophically committed to the notion of shared decision making, other circumstances may mitigate against the success of the approach. As Argyris (1973) states, "Very few people can learn new behavior and internalize patterns that will not vanish under stress."

Koehler (1976) states: "New structures and procedures must be developed which, first, identify those teachers who are seeking greater decisional authority; second, encourage competent but decisionally saturated teachers to sustain involvement; third, invest participating teachers with authorities and responsibilities that are commensurate with their levels of decisional input; and fourth, develop and maintain the functional interaction within the system which is necessary to the generation of variable decisions. Finally, all participants in the decision-making process should be held accountable for their decisions."

In the June 8, 1988 issue of Education Week, Gold reports on "shared governance" of schools in Easton, PA. Newly formed local school planning councils, "consisting of a principal and two elected teachers (will) share decisions on curriculum, promotion criteria, discipline, and other policies," with the hope that "improved educational outcomes" would ensue.

The Chicago Public Schools have actively promoted the shared planning model for a number of years. Now the system is in a ferment of broadbased training efforts to prepare for the changes legislated by the School Reform Act which goes into effect July 1, 1989. The act mandates local councils for every school, consisting of the principal, school employees, parents, and community members, which will share authority over the local school budget and the continued employment of the principal. In order to prepare schools and community for these new duties and responsibilities, training in shared decision making is being offered to school leadership teams through several programs, both public and private. The commitment to the process is apparent. How the process of shared decision making relates to goals for school improvement is the subject of the remainder of this paper.

Design of the Study, Questionnaire, and Sampling Procedure

In spring 1988, questionnaires on current school planning and decision-making activities were sent to a sample of schools that had responded to a similar survey in 1987. The School Planning Questionnaire was developed in the Department of Research and Evaluation. It consisted of 29 items suggested by the research literature and augmented by the writers' observation of planning activities in the Chicago Public Schools. Questions focused on description of the planning process, activities in which the respondent participated, topics discussed in the planning sessions, perceptions regarding the shared decision making process, perceived effectiveness of planning, and perceived outcomes from participation in shared decision making. Principals were asked to fill out one form themselves and distribute another five: four to certificated staff and one to a career service employee. A copy of this instrument is located in the appendix of this report.

A 10 percent sample of elementary schools and a 25 percent sample of high schools had been selected in spring 1987 by means of a random number table. Schools were sampled from each district and section of the city school system. Table 1 lists the schools in the June 1988 survey and the number of responses from each. There were 242 questionnaires returned from certificated staff, 179 from 47 elementary schools, and 63 from 16 high schools. The rate of return was about 75%. Every elementary and high school subdistrict in the system was represented. Table 1 also gives the most recent data on selected characteristics of sample schools: enrollment, racial/ethnic make-up, percent of low-income students, percent of limited English proficient, attendance, reading and math scores, and number of students tested.

Table 2 shows the returns by position of respondent. As would be expected, most of the respondents were teachers (72.3%). Responses were also received from 42 principals, representing two thirds of those eligible. This report includes the responses of certificated staff only.

Methods of Data Analysis

Several statistical techniques were used in this study. In the first part, basic data from individual questionnaires were tabulated and aggregated. The differences in responses of varying groups were explored: between all elementary and high school respondents; among the low, medium, and high shared decision making groups; among all school units; and between positions (principal *versus* other staff). The *Statistical Package for the Social Sciences (SPSS)* was employed on a mainframe Univac.

Because the questionnaire data were categorical and ordinal in nature, chi square statistics were calculated to test the likelihood that the differences in the cells were greater than what would be expected by chance alone. The level of error probability (alpha) was set at .05. Spearman correlations were used to determine the decision making index.

A second part of the study was to compare the strength of association between the shared decision making index and other independent variables (enrollment, percent of low income students) at the school level with the dependent variables of achievement and attendance. Multiple regression techniques were utilized in this part of the analysis. One-way ANOVA indicated if there were significant differences between the three shared decision making groups on the outcome variables of achievement (reading and mathematics) and attendance. The Statpacks Program was utilized for these analyses.

Results--Part One

Description of Planning Activities (Table 3)

More than 90% of all the respondents to the questionnaire reported that their school had a planning committee, and about 80% said that staff inservice meetings had been devoted to planning. Some 60% or more also indicated that other types of planning meetings had occurred in the 1987-88 school year.

About three quarters of all respondents considered themselves members of the School Planning Committee, and all but one person said their school had an Action Plan. As a whole, these respondents seemed to be part of the leadership circle of their schools since 81% said they had attended an Institute for School Planning in August of 1987. The Institute had brought together principals and the teachers they had selected to work on plans for the ensuing year.

More than 90% of the respondents said planning meetings were held early in the fall at the beginning of the school year. It was frequently reported that planning meetings were held at other times during the year as well.

Planning meetings usually included 6-10 participants (according to 36% of the respondents) or 11 to 15 participants (25%). Two thirds of the respondents said the principal was "always" a participant in the planning meeting. Teachers were "always" a part of the planning meetings according to 82% of the respondents. Career service staff were "always" included in the planning meetings according to 31% of the reports, and another 39% said that career service personnel and parents were "usually" at planning sessions.

Close to half the respondents overall (47%) said the agenda for planning meetings was set by a planning team. In contrast, another 25% declared that the principal and another administrator planned the agenda, while 13% said this task was performed by the principal alone.

The topics most often reported to have been discussed at the planning meetings overall were: progress toward meeting local school objectives, student attendance, school needs for the coming year (1988-89), and instruction in reading. These topics were identified by more than 80% of all respondents.

Overall Perceptions of Planning and Shared Decision Making Effectiveness

To the question, "Did shared planning take place in your school?," a little more than half of the respondents overall said, "to a great extent." About 45% were more tentative, marking "to a certain extent." A small minority said, "not at all."

To the question on communication of plans across all levels in the school, 67%, said "great extent" and 31%, "to a certain extent." On the item relating to the respondents' participation in shared decision making, there was a split overall, 60% saying it was personally helpful "to a great extent" and 47%, "to a certain extent." About 61% thought their school's plan was modified "to a certain extent" during the year.

Respondents were asked to indicate the relative effectiveness of their planning for improvement in several areas. It was found that, overall, four of the topics were rated "effective" by 65% or more of the respondents; principal/teacher communication, teacher/teacher communication, instruction, and school climate/morale.

In the final section of the questionnaire, respondents were asked if they agreed or disagreed with certain statements about school planning meetings. About 90% overall agreed that, through planning, their understanding of systemwide goals had improved, the opportunity to review goals was timely, and that they were able to focus on school needs. The lowest level of agreement, still rather high, was with the statement that the planning meetings had improved teacher morale (69%) and that group planning had helped the respondents reach their own goals (77%).

Elementary and High School Comparisons (Table 3)

Initial analyses involved cross-tabulation of the responses to selected items by school level (high school or elementary school). The chi square statistic was utilized to determine significant differences between the groups. Significant differences between high school and elementary perceptions were reported on the following items:

> Item 10E. 64% of the elementary respondents said planning for improvement of test scores was effective compared to 39% of the high school respondents (X^2=18.11; df=4; p<.001).
>
> Item 10F. 49% of the elementary respondents said planning for parent participation was effective compared to 33% of the high school respondents (X^2=12.42; df=4; p<.01).
>
> Item 11A. 94% of the elementary respondents said that planning had improved their understanding of systemwide goals compared to 82% of the high school respondents who agreed ((X^2=5.76; df=1; p<.02, with Yates correction).

The data by school level also revealed differences in the topics discussed at planning meetings. More high school than elementary school participants indicated discussion of school organization, counseling, music, gym, dropouts, failure reduction, needs of Special Education students, school morale, climate, and other local school emphases. Nearly equal responses (between

elementary and high school participants) were noted on the topics of teacher attendance, student attendance, discipline, needs of LEP students, computer education, and achievement testing. More elementary school participants reported discussing the topics of progress toward objectives, how to plan, school needs, parent activities, transition to the next level, reading, mathematics, science, social studies, art, and school beautification.

The Index of Shared Decision Making

Responses were also compared between levels of shared decision making. An important first step was the calculation of a school index of shared decision making using the procedure described below.

Spearman correlation coefficients (r_s) were calculated between the shared decision making variable (item 9A) and items 9B, 9C, and 9D (variables RATE 2, RATE 3, and RATE 4). These items tap the respondents' perceptions of extent of shared decision making, how well the plans were communicated, how helpful the activities were, and whether plans were modified. The correlations are shown below:

Variables	r_s	p<
RATE 1	1.000	
RATE 2	.428	.000
RATE 3	.404	.000
RATE 4	.182	.003

A school average was calculated on RATE 1, the direct statement about shared decision making. There were about four responses available per school on the item. In order to increase the separation between schools, the averages of RATE 2 and RATE 3 (calculated the same way) were added to that of RATE 1. Both RATE 2 and RATE 3 were moderately and significantly correlated with RATE 1. Because its r_s was very small, RATE 4 was not used.

The index of shared decision making for each school (later called RATE) was a sum of the school averages on 9A, 9B, and 9C. All schools were ranked from high to low on this index, elementary and high schools separately, and the set divided into three groups. The mean of the elementary school index was 7.67; the high school index mean was lower, 7.41. The schools characterized as "low" were one-half a standard deviation or more below their respective mean, and the "high" schools, one-half or more above the mean.

Shared Decision Making Group	(Index $\bar{x}$ = 7.67; S.D. = .86) Elementary	(Index $\bar{x}$ = 7.41; S.D. = 1.11) High School
	n	n
Low (<.5 S.D. below $\bar{x}$)	14	4
Medium (-.5 S.D. to + .5 above $\bar{x}$)	18	6
High (> .5 S.D. above $\bar{x}$)	15	6
	47 schools	16 schools

The shared decision making group identification number was then added to each questionnaire file.

In order to gain concurrent validity that a positive relationship existed between responses to the direct question about shared planning and the kinds and frequency of planning activities, the responses to item 9A (RATE 1) were correlated with the total number of planning activities and the total number of meetings checked on each questionnaire. The Spearman correlation r_s for ACTIVITIES x RATE 1 was a moderate .50, and for MEETINGS x RATE 1 was .28. Both were significant ($p < .000$). We also examined the correlation of RATE 1 with participation in planning meetings. The correlations with the participation of parents, teachers, the principal, and career service staff were low (r_s of .28, .26, .15, and .15) but they were also all significant. Given these correlations in total, it was concluded that the index would be a logical summary of the implementation factors that make up shared decision making in a school.

Elementary School Differences at Three Levels of Shared Decision Making (Table 4)

Significant differences in responses from low, medium, or high shared decision making elementary schools were noted on eleven questionnaire items.

Items 6B, and 6C. 71% of the respondents in low shared decision making schools said teachers took part in planning meetings compared to 94% of those from high shared decision making schools ($x^2=10.97$; df=4; $p<.02$). The same trend was also evident for principals' participation (item 6A) (non-significant difference). The significance of the difference in career service participation in 6C was inflated due to missing data.

Item 7. Only 27% of the respondents from low shared decision making schools said that a planning team set the agenda, compared to 51% of the medium group and 61% of the high group respondents ($x^2=25.99$; df=12; $p<.01$). The low group were more likely than the other groups to say that the principal set the agenda, alone or with another administrator.

(Item 8). The average number of topics covered in low group planning meetings was 45% of the list compared to 55% of the topics covered by the medium and high groups (no significance tests).

Item 9A. The percent who thought shared planning took place "to a great extent" ranged from the low group's 23% to the medium group's 53% to the high group's 85% ($x^2=43.86$; df=4; $p<.000$).

Item 9B. The same trend as above was apparent on the perception of communication of plans. The low elementary group was least likely to say, "to a great extent," 41%, while the medium group said 70%, and the high group, 96% ($x^2=39.05$; df=4; $p<.000$).

Item 9C. Here, too, the same trend was noted as was found in 9A and 9B. Only 25% of the elementary respondents in the low group found shared decision making personally helpful, compared to 45% of those in the medium group and 76% of those in the high group ($x^2=37.16$; df=4; $p<.000$).

Items 10C, 10E, 10G, and 10H. The elementary responses on the perceived results of planning for the improvement of teacher attendance (x^2=19.70; df=8), test scores (x^2=21.08; df=6), principal/teacher communication (x^2=41.02; df=8), and teacher/teacher communication (x^2=11.70; df=8); followed the trend on previous items cited. The low group thought planning was least effective in these areas, the medium group, more effective, and the high shared decision making groups, most effective.

Item 11F. This item concerns the degree to which planning helped schools to focus on areas of need for improvement. Large majorities of all three groups agreed with the statement, but again, the trend repeated: the higher groups were more in agreement than the low group (x^2=6.56; df=2; p<.04).

High School Differences at Three Levels of Shared Decision Making (Table 5)

Significant differences in high school responses by shared decision making group were noted on seven questionnaire items. There were no significant differences between groups on size of planning meetings, participants, who set the agenda, or topics discussed. The trend in all but one of the items (exception was 10F) with significant chi squares was for the low group to be least positive and the high group most positive.

Item 9A. The range of difference on high school respondents' perception that shared planning took place "to a great extent" was 18% for the low group, 45% for the medium group, and 73% for the high group (x^2=14.82; df=4; p<.005).

Item 9B. On communication of plans throughout the school, only 18% of the low group said, "to a great extent." Much greater percentages of the medium and high groups agreed, 65% and 68%, respectively (x^2=11.82; df=4; p<.02).

Item 9C. Only 10% of the low group respondents thought their participation in shared decision making was helpful, compared to 50% of the medium group, and 77% of the high group (x^2=13.33; df=4; p<.01).

Items 10B, 10D, 10F. These items concerned planning's effectiveness in bringing about improvement. Between-group differences were significant in student attendance (x^2=18.92; df=8; p<.02), school climate/morale (x^2=16.68; df=8; p<.03), and parent participation (x^2=16.53; df=8; p<.04). This was an entirely different set of significant items from those reported for the elementary respondents.

Item 11B. Only 50% of the low group high school respondents agreed that planning time helped them set realistic objectives, compared to 86% of the medium group, and 95% of the high shared decision making group (x^2=10.44; df = 2; p<.01).

Differences in Responses by School Unit

Across all school units, elementary and high school, differences in responses were significant on eleven items: the number of participants in planning meetings; who set the agenda; three items on shared decision making;

effectiveness of planning to improve teacher attendance, test scores, parent participation, and principal/teacher communication; and whether or not the planning time had helped a school frame realistic objectives.

Differences by Position of Respondents

This comparison was between the questionnaire responses of principals versus all other certificated staff. Chi square differences were significant on four items.

Item 10B. Principals were less likely than other staff to say that planning was effective in improving student attendance (x^2=10.64; df=4; p<.03).

Item 10D. Principals were more likely than other staff to think that planning was effective in improving morale (x^2=11.49; df=4; p<.02).

Item 10H. Principals were less likely than other staff to state that planning was very effective in improving teacher/teacher communication (x^2=10.67; df=4; p<.03).

Item 11C. Here, too, principals were more positive than other staff about planning's improving morale (x^2=3.94; df=1; p<.05) (compare to Item 10D above).

Results--Part Two

Part One of this study showed that there were distinct differences among the schools in the sample in the extent of planning and shared decision making perceived as taking place. These findings are well supported in the research literature, which has often described the different levels of shared planning and the attitudes of school staff toward the process. The remainder of this paper will examine the relationships between the school-level shared decision making index and school size, percent of low income students, achievement, and student attendance.

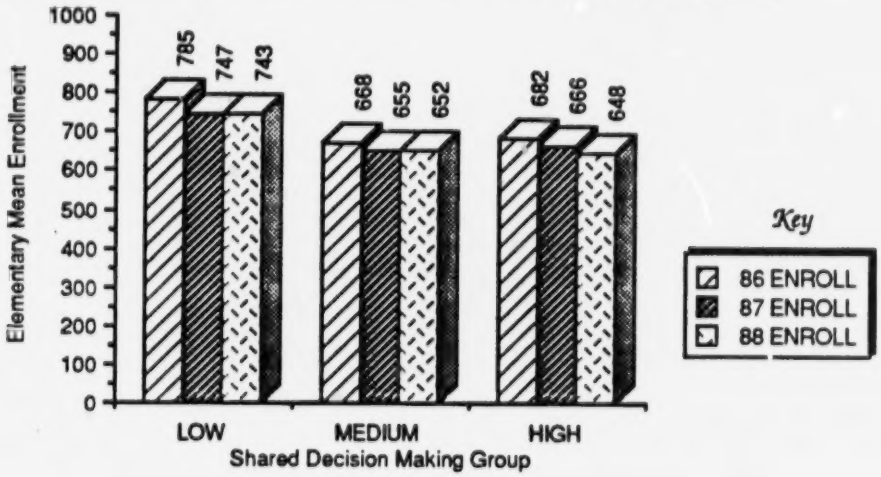
While the literature has often shown that shared decision making and group planning improve morale and communication, the hypothesis that adopting these functions will lead to measurable improvements in endogenous variables like reading or mathematics scores or attendance has not been tested. In the Chicago Public Schools, group planning has been advocated for a number of years as a means of obtaining better results on school and systemwide objectives. This paper explores the idea that shared planning and decision making as a management technique will lead to greater accomplishment of formal objectives for improvement of achievement and attendance.

Elementary and high school data are analyzed separately because of large group differences in school size, rate of student attendance, overall level of enthusiasm as reflected on questionnaires of this type in previous years, different achievement tests given at different times, and different systemwide objectives for improvement.

Elementary School Enrollment by Shared Decision Making Group

Figure 1 (following) shows that enrollment declined over the period in all three groups. Enrollment was highest in the low shared decision making group (n=14 schools) in each year reported (October in 1986, 1987, and 1988). In the most recent year, 1988, there was nearly a 100-student difference between the low "shared" group and the medium (n=18 schools) and high (n=15 schools) groups (which themselves were very similar in average size). A lower shared decision making index was associated with a larger elementary school enrollment.

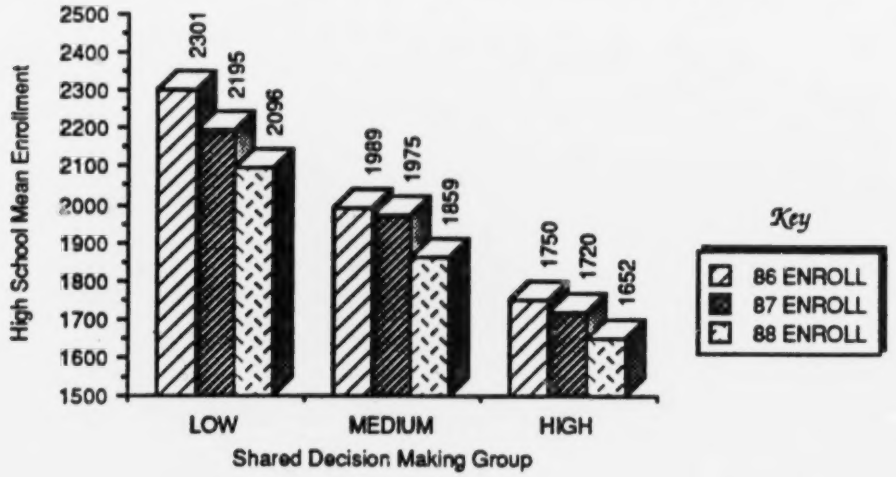
Figure 1.. *Elementary Mean Enrollment by Shared Decision Making Group*



High School Enrollment by Shared Decision Making Group

The same enrollment trend was evident among the 16 high schools: declines were noted over the period 1986-1988. The low shared decision making group (n=4 schools) averaged over 2,000 students by 1988 (though it should be kept in mind that the "low" group also included, in addition to the two largest schools, the smallest high school in the sample); the medium group (n=6 schools) averaged 1,859 students that year; and the high group (n=6 schools), 1,652 students. Thus, in the high schools, a higher shared index was associated with a smaller enrollment (see Figure 2).

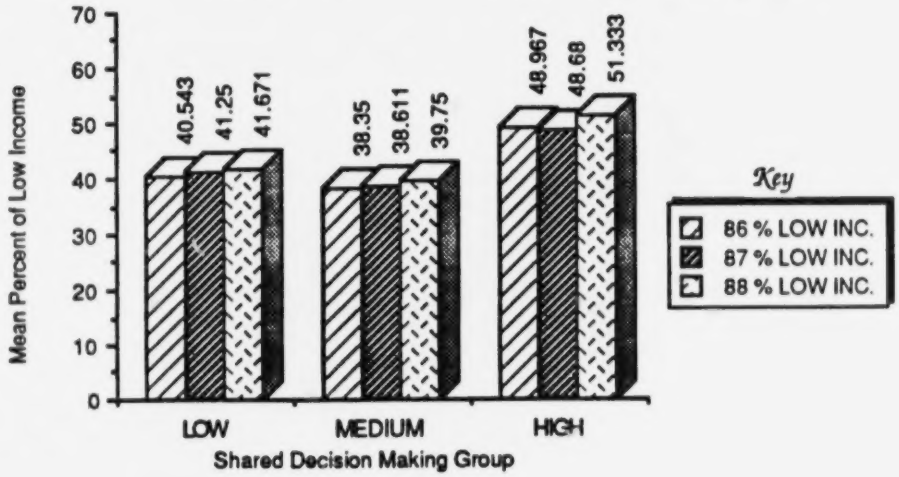
Figure 2. *High School Mean Enrollment by Shared Decision Making Group*



Percent of Low-Income Students in Elementary Schools by Shared Decision Making Group

The average percent of low-income students was lowest (least poverty) among the schools reporting a medium amount of shared decision making, 39.75% in 1988. The elementary schools averaging "low" on the "shared" index had a somewhat greater poverty level, about 41%. The high "shared" schools also showed the highest poverty level, 51% in 1988 (see Figure 3).

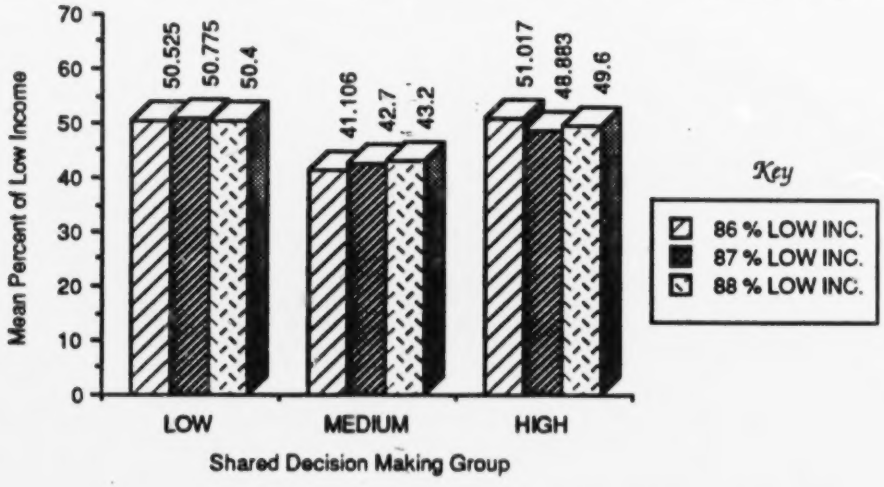
Figure 3. *Elementary Mean Percentage of Low Income by Shared Decision Making Group*



Percent of Low-Income Students in High Schools by Shared Decision Making Group

Among the three high school shared decision making groups, the low and high groups had the highest percentages of low-income students, about 50% in 1988. The group of schools with the medium "shared" rating had less poverty, though it increased over the period 1986 to 1988 to 43%. This was a different pattern from that seen in the elementary schools (compare Figure 4 to Figure 3).

Figure 4. *High School Mean Percentage of Low Income by Shared Decision Making Group*



Reading Achievement in Elementary Schools by Shared Decision Making Group

In order to make this comparison, an overall reading score was calculated for each school in the sample for each of three years. Elementary school students were tested each spring on the Iowa Tests of Basic Skills, Form 7 (ITBS). The median reading grade-equivalent scores for each grade are published annually along with the number of students tested. For this study, the third, sixth, and eighth grade median scores were used. The grade equivalents were converted to percentiles, then NCEs. These were weighted by the number of students tested, and a single equal-interval scaled NCE reading score was obtained for each school for each year 1986-1988. Gains were determined by subtracting school NCE scores for the two-year spans, 1987-1986 and 1988-1987.

Figure 5 (following) shows that the schools which formed the medium shared decision making group had an NCE reading mean of 47.5 in 1988; this group had the highest three-year average. The school group which reported the most shared decision making had the lowest reading NCE in 1988, 43.9.

Figure 5. *Elementary Reading Mean NCEs*

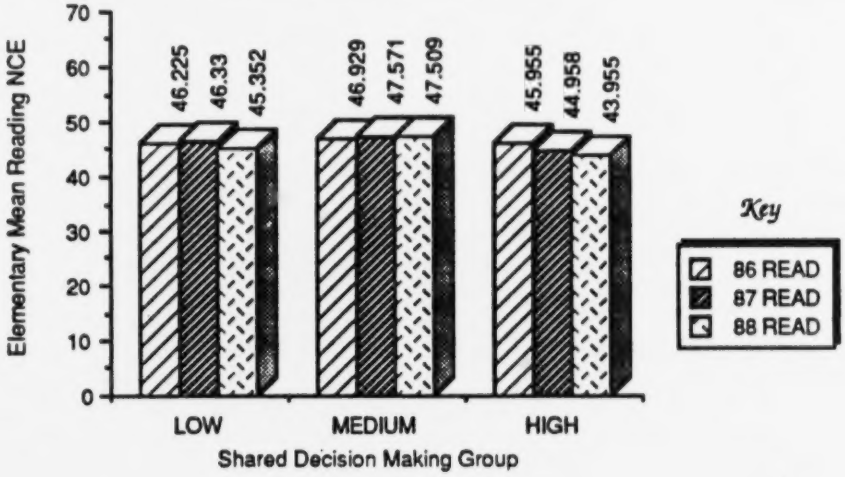
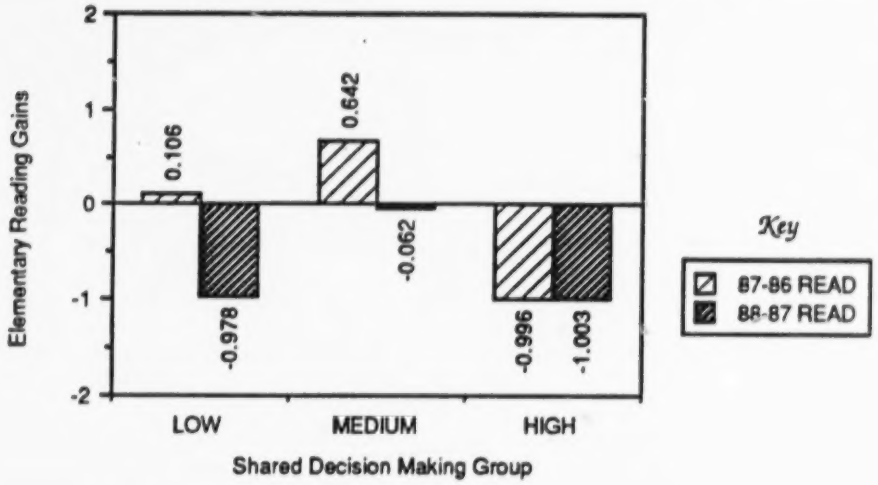


Figure 6 shows the reading gain for the three groups for two periods, 1986-87 and 1987-1988. The greater gains were made by the group of schools reporting a medium amount of shared decision making. The high group lost about one NCE unit from 1986 to 1987 and another NCE unit from 1987 to 1988. The medium "shared " group gained more than half an NCE and then lost only a slight amount the next year. The low group lost one NCE from 1987 to 1988.

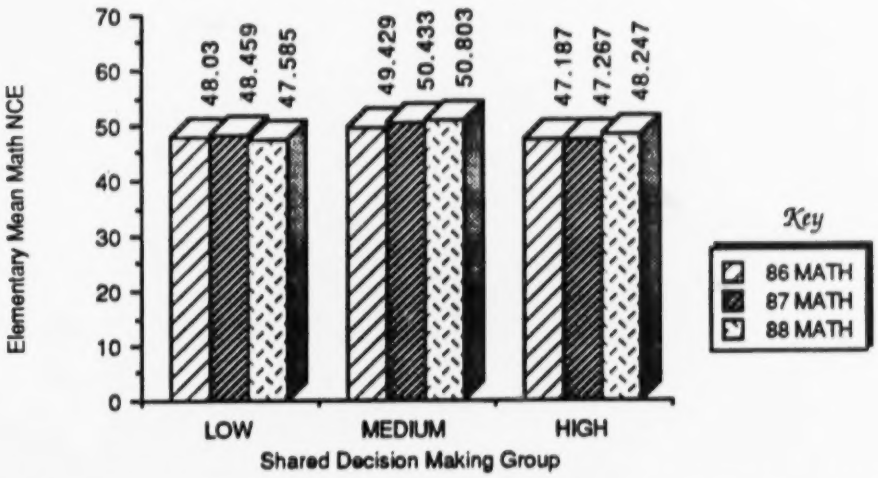
Figure 6. *Elementary Reading Gains by Shared Decision Making Group (Mean NCE Difference)*



Mathematics Achievement in Elementary Schools by Shared Decision Making Group

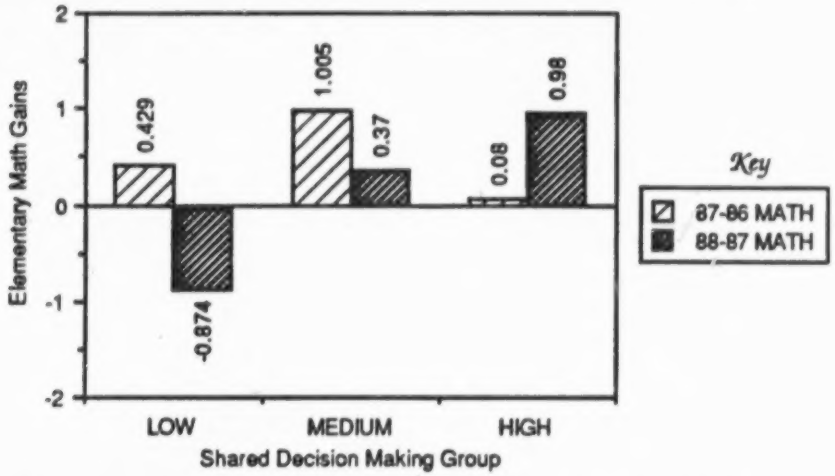
The single NCE mathematics score for each elementary school was calculated in the same way as was the reading score, but using school ITBS Mathematics Total median grade-equivalent scores for 1986, 1987, and 1988. The medium group of schools on the "shared" scale had the highest math average (50.8 in 1988) and showed improvement each year. The low and high "shared" groups averaged 47-48 NCEs (see Figure 7).

Figure 7. *Elementary Math Mean NCEs*



Math school-level gains were smallest in the low shared decision making group. Figure 8 shows a gain of about half a point one year, then a larger drop the next. The medium and high "shared" groups, however, showed gains of up to one NCE each year.

Figure 8. *Elementary Math Gains by Shared Decision Making Group (Mean NCE Difference)*

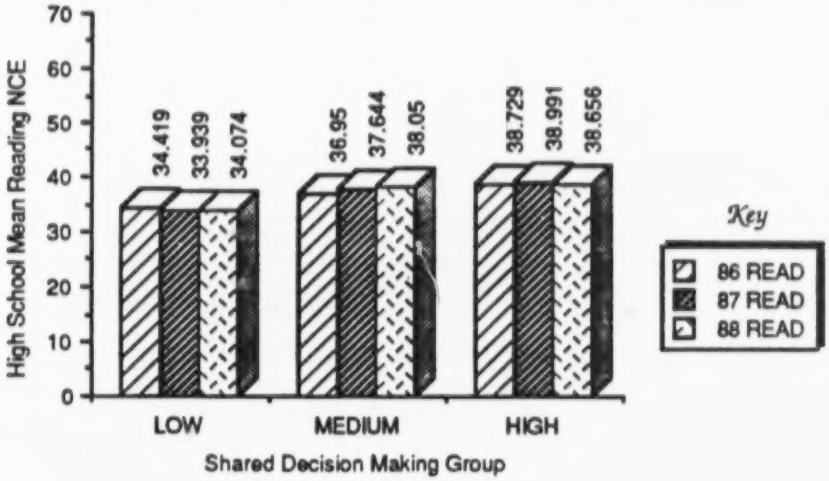


Reading Achievement in High Schools by Shared Decision Making Group

An overall reading score was calculated for each high school in the sample for three years. High school students are tested each fall on the Tests of Achievement and Proficiency (TAP). The median percentile at each grade in reading and mathematics is published annually, along with the number of students who took the test. For this study the median scores for all four grades, 9-12, were used. The percentiles were converted to NCEs and, as described earlier, a single number was obtained for each high school per subject each year.

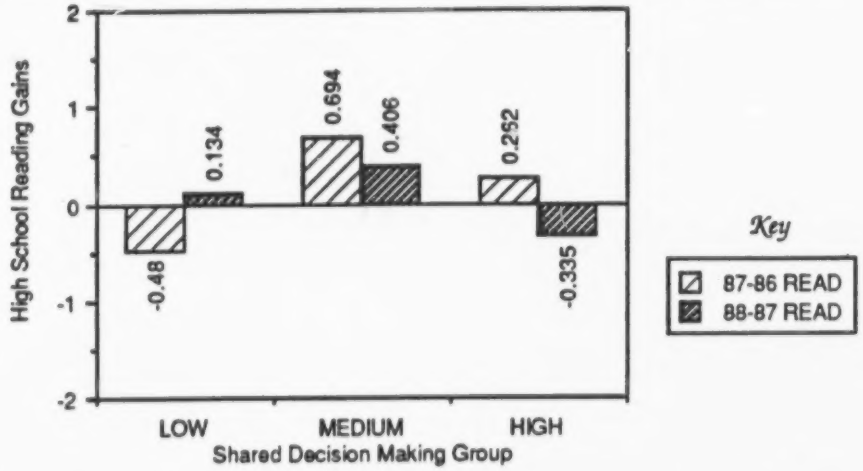
In 1988, the average reading score was about equal in the medium and high shared decision making high schools, an NCE of about 38. The medium group reading average was on an upward trend, while the high "shared" group average was above 38 all three years (see Figure 9). The low "shared" group reading NCE mean was about 34 and showed little change over the period,

Figure 9. *High School Reading Mean NCEs by Shared Decision Making Group*



The medium "shared" group showed NCE gains in reading achievement both years. The low "shared" group showed a loss, then some slight improvement; the high "shared" group experienced a gain, then a loss (see Figure 10).

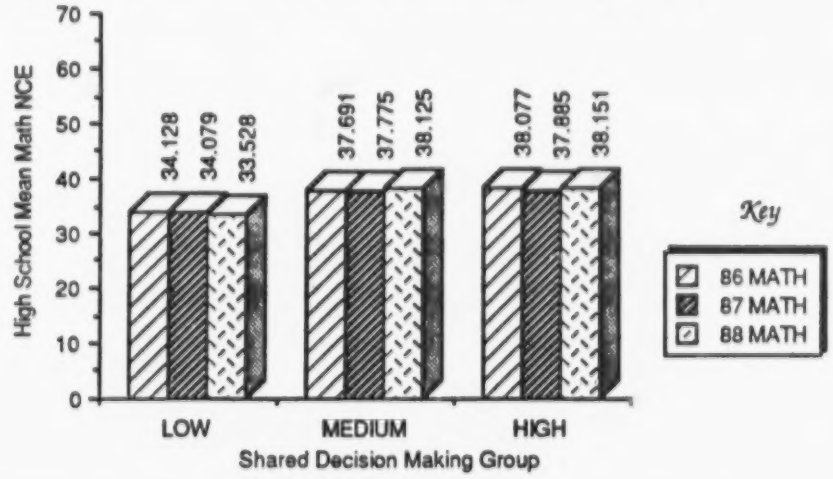
Figure 10. *High School Reading Gains by Shared Decision Making Group (Mean NCE Difference)*



Mathematics Achievement in High Schools by Shared Decision Making Group

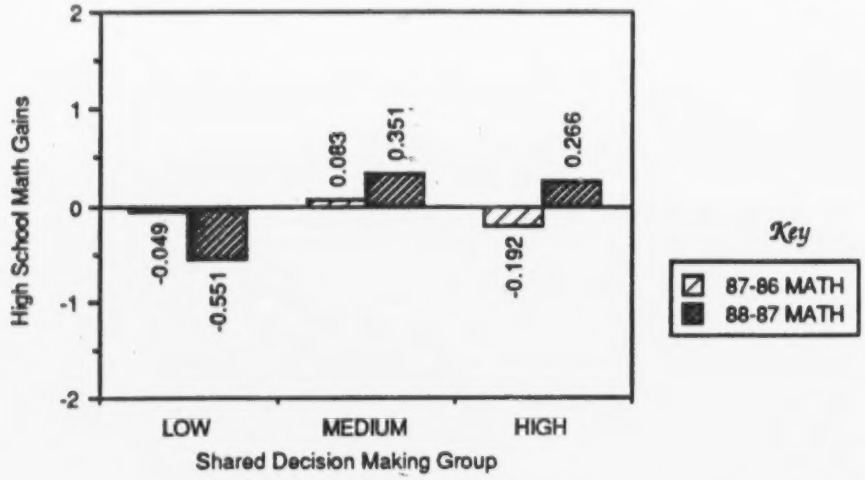
A single annual NCE mathematics score was calculated for each high school in the sample as described above, using the TAP mathematics median percentile reported by grade for 1986, 1987, and 1988. The medium and high "shared" groups had very similar averages--NCEs of about 38. The low shared group math average was much lower--33.5 in 1988 (see Figure 11).

Figure 11. *High School Mean Math NCEs by Shared Decision Making Group*



The medium and high groups each showed small gains from 1987 to 1988 (amounting to somewhat less than half an NCE unit), while the low "shared" group lost about half an NCE in mathematics (see Figure 12 below).

Figure 12. *High School Math Gains by Shared Decision Making Group (Mean NCE Difference)*



Student Attendance in Elementary Schools by Shared Decision Making Group

Figure 13 shows the elementary school attendance rate by "shared" group. Attendance was reported as the percent of student attendance per school by year. Gains were once again determined by subtracting the values for the targeted years. The mean percentages of attendance were very similar across all groups for three years, with a slight decline, to less than 93%, for 1988.

Figure 13. *Elementary Mean Percentage of Attendance by Shared Decision Making Group*

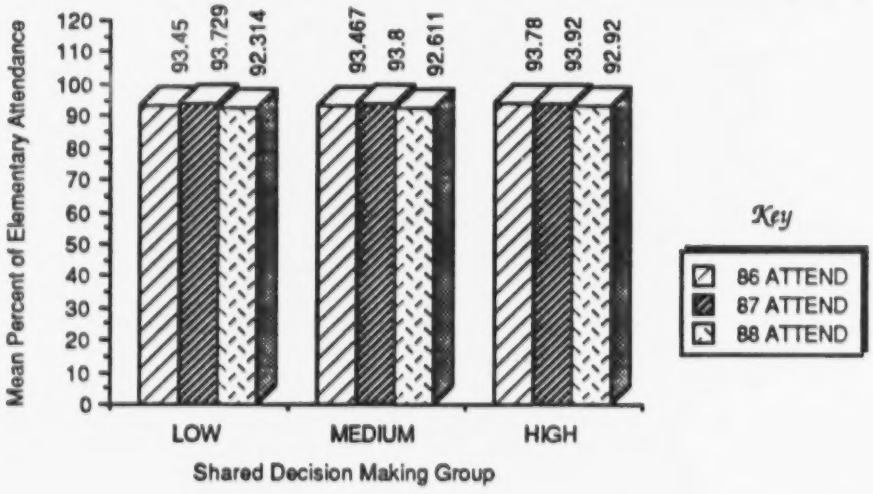
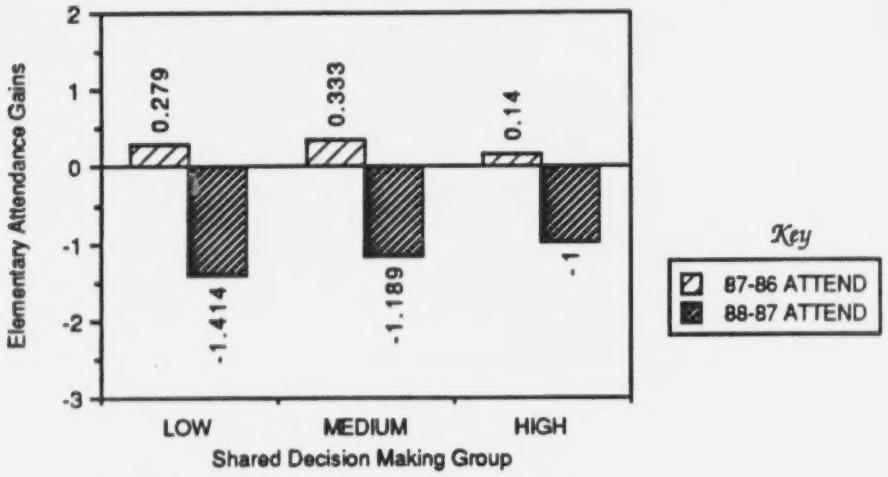


Figure 14 shows that the elementary school gains in attendance overall from 1986 to 1987 were lost in 1987-1988. All three groups lost a point or more, the "low" shared decision making group the most.

Figure 14 *Elementary Attendance Gains by Shared Decision Making Group (Mean Difference)*



Student Attendance in High Schools by Shared Decision Making Group

The attendance rate in the medium shared decision making group held steady at about 84% for the three years reported (see Figure 15). The low "shared" group started out low and went lower to 76%; the high group also dropped, to 78% by 1988.

Figure 15 *High School Mean Percentage of Attendance by Shared Decision Making Group*

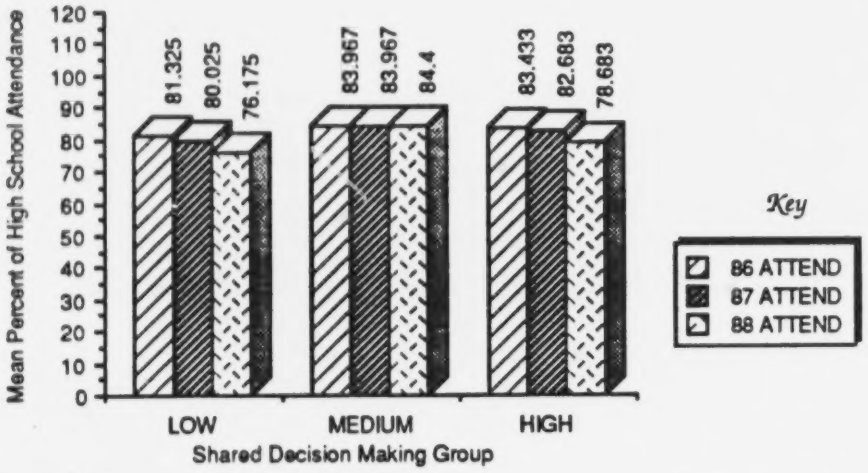
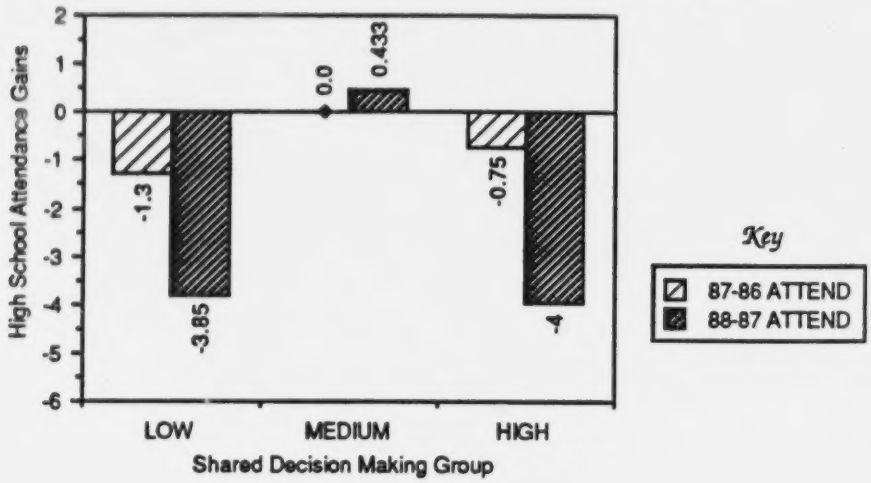


Figure 16 illustrates the difference in high school attendance rates from 1986 to 1987 and 1987 to 1988. The medium shared decision group attendance rate was unchanged from 1986 to 1987, then it registered a gain of nearly half a point. Both the low and high "shared" groups had a cumulative attendance loss of almost 5 points for the two years under consideration.

Figure 16. *High School Attendance Gains by Shared Decision Making Group (Mean Difference)*



Analysis of Variance Between Shared Decision Making Groups

The significance of the differences between the three shared decision making groups on achievement (reading and math) and attendance outcomes was determined by using One-way Analysis of Variance (ANOVA). For the reasons discussed earlier, high school and elementary school groups were considered separately in the analyses. Calculations were performed on school values by year (1986, 1987, 1988) and on gain or difference scores (1986-1987 and 1987-1988).

Of these analyses, only two F-values were found to be significant. Both occurred in the high school subgroup. Significant differences by shared decision making group were evident in the areas of 1987-1988 high school math gains and for 1988 high school attendance by shared decision making group. These ANOVA tables are presented below.

1988-87 H.S. Math Gains	Sum of Squares	Deg. of Freedom	Mean Squares	F-Ratio	Prob>F
Between groups	2.237	2	1.118	4.551	0.031
Error	3.195	13	0.246		
Total	5.432	15			

1988 H.S. Attendance	Sum of Squares	Deg. of Freedom	Mean Squares	F-Ratio	Prob>F
Between groups	184.444	2	92.222	3.927	0.045
Error	305.316	13	23.486		
Total	489.760	15			

ANOVA procedures were also utilized to determine if the differences between the shared decision making groups were significant on the variables of percent of low income and enrollment. The differences found were not significant.

Regression Analysis

Regression analysis indicates how well certain variables predict an outcome. This paper examines how the shared decision making school index, the percent of low income, and school enrollment contribute to the variation in school achievement and student attendance. In some of the regressions reported, attendance also served as an independent or explanatory variable. The regressions were generated using the StatWorks program on a Macintosh Plus computer.

Elementary school variable names and definitions are listed below. The same names were used for the high school variables.

88, 87, 86 R - The NCE school reading mean, 1988, 1987, 1986
88, 87, 86 M - The NCE school mathematics mean, 1988, 1987, 1986
88, 87, 86 ATT - Average student attendance, 1988, 1987, 1986
88, 87, 86 ENR - School enrollment, October, 1988, 1987, 1986
88, 87, 86 LOW - Percent of low-income students, 1988, 1987, 1986
88, 87, 86 RATE - The shared decision making group to which a school was assigned, (range = 1 to 3)
PURE RATE - The exact shared decision making index of the school (range = 3 to 9)

88-87 R - The difference in school reading means for the years shown.
87-86 R - The difference in school reading means for the years shown.
88-87 M - The difference in school mathematics means for the years shown.
87-86 M - The difference in school mathematics means for the years shown.
88-87 ATT - The difference in school attendance means for the years shown.
87-86 ATT - The difference in school means between the years shown.

The STATWORKS program produced regression tables giving beta weights (Bs), sums of squares, degrees of freedom, mean squares, F-ratios, and significance statistics for the model (the regression equation). The coefficient of determination (R^2) is interpreted as the percent of variation in the dependent variable explained by the equation. A correlation matrix is also printed. The alpha level of significance for each hypothesis tested was .05.

In this sample of elementary and high schools it was found that the percent of low-income students in a school (the variable LOW) was the best single predictor overall of reading and math achievement in both elementary and high schools. There were two main combinations of variables tested--LOW and the shared decision making index (RATE), with either school enrollment (ENR) or attendance (ATT). These equations were good predictors of reading and mathematics school means but poor predictors of achievement difference scores or of attendance when it was a dependent variable. These findings are described more fully below.

Elementary Schools. The coefficients (Bs) for the percent of low-income students (LOW) were significant in all the equations when reading and math school means were regressed ($p<.001$). LOW coefficients were not significant in the equations in which achievement differences between years were the dependent variable.

Percent of low-income students (LOW) was also significant as a predictor of annual school attendance rate, though not for differences (gain or loss) in attendance between years.

Attendance (ATT) was found to be a significant predictor of elementary reading and math means in 1988 and for math means in 1986 when the shared decision making variable (RATE) was in the equation.

The regressions of elementary reading and math NCE school mean scores on percent of low-income students (LOW), the shared planning index (RATE), and school enrollment (ENR) were significant for three years--1988, 1987, and 1986. Coefficients of determination (R^2) ranged from .33 to .50; the percent of variance in achievement scores for both reading and math accounted for by these variables was higher in the more recent years than in 1986 (see Tables 6A and 6B for 1988 results).

When attendance replaced enrollment in the equations, the regressions of reading and math NCE school means were also significant for the three years. The coefficients of determination ranged from .36 to .52, indicating that 36 to 52% of the variance in reading and math school means was accounted for by low income, the "shared" index, and attendance (see Tables 6C and 6D for 1988 results).

When both attendance and enrollment were entered into the equation along with percent of low-income students and the "shared" index, using 1986 data, the coefficient of determination, while still being significant, only increased from .36 to .37.

None of the regressions of achievement differences (gain) scores was significant. When the reading and math differences for 1988-87 and 1987-86 were regressed on percent of low-income students and the shared decision making index plus enrollment or attendance, the coefficients of determination approached zero.

When attendance was taken as the dependent variable and regressed on percent of low-income students, the "shared" index, and enrollment, the equation was not significant in 1988. In 1986 and 1987, however, the coefficients of determination were significant though small (.19 and .22) (see Table 6E). Regressions of elementary school attendance differences between 1988-87 and 1987-86 on the same variables were non-significant.

High Schools. The same program described previously was used to generate the high school regressions. When the school means on reading and math were regressed on percent of low-income students, the shared decision making variable, and enrollment for three years, the percent of low-income students was significant.

The coefficient of LOW (B weight) was significant when 1988 reading and math, and 1986 math were each regressed on percent of low-income students plus the "shared" index plus attendance. LOW was also a significant predictor of attendance in 1987 and 1986, though not in 1988, when RATE and ENR were also in the equation.

The shared decision making index (RATE) was found to be significant only once, as a predictor of math gains from 1987 to 1988 when percent of low-income students and enrollment were also in the equation, but the overall equation was not significant.

The regressions of high school reading and math NCE school mean scores on percent of low-income students, the "shared" index, and enrollment had significant F-values over the three years. The coefficients of determination (R^2) ranged from .54 to .65, slightly higher than were found in the elementary data (see Tables 7A and 7B for 1988 results).

When the variable attendance replaced enrollment in the equations, regressions of reading and math NCE school means were also significant for 1988, 1987, and 1986. The coefficients ranged from .57 to .63, higher than those reported for elementary schools on parallel equations (see Tables 7C and 7D for 1988 results).

None of the equations used to predict high school reading and math difference scores was significant. Coefficients of LOW + RATE + ENR or ATT were close to zero.

For 1987, the regression of attendance on LOW + RATE + ENR was significant with a coefficient of determination of .52 (see Table 7E). These equations were not significant for 1986 or 1988 data. Regressions of high school attendance year-to-year differences were also found to be non-significant. Correlation matrices of all elementary and high school variables for 1988 appears in Tables 8 and 9.

Discussion

Characteristics of Shared Decision Making

A portion of this study addressed the characteristics of the planning groups and attempted to glean a clearer definition of the shared decision making process. The results of correlation analyses revealed that respondents who perceived that shared decision making took place to a great extent also felt that plans were communicated well and that the planning activities were helpful. Further, groups that indicated that shared decision making took place to a great extent also reported participation in more school planning activities and attending more meetings throughout the school year as opposed to being limited to the beginning of the school year only, etc. The size of the groups which met to plan was not significantly different among the three shared decision making classifications.

Schools with higher shared decision making at the elementary school level indicated more participation by non-administrators (teachers, career service). Low shared decision making schools were most likely to indicate that the principal set the agenda alone or with another administrator. The high shared decision making schools, on the other hand, were most likely to indicate that the planning team set the agenda. In terms of the perceived effectiveness of planning at the elementary school level, the low shared decision making group was least likely to find the planning activities to be effective in the improvement of teacher attendance, test scores, principal/teacher communication, and teacher/teacher communication. The high shared decision making group, however, found planning in these areas to be very effective.

At the high school level, the high shared decision making group felt that plans were communicated to a much greater extent than the low shared decision making group. A similar trend was noted on the perception of how helpful shared decision making had been to the participants personally. The high school participants in the high shared decision making group perceived the planning activities to be effective in improving student attendance, school climate/morale, and parent participation. Those respondents in the low shared decision making category were less likely to find planning in these areas to be effective. Finally, the high school respondents in the high shared decision making group were most likely to feel that the planning time had helped them to set realistic objectives.

The findings regarding increased teacher satisfaction and improved teacher morale and climate are well supported by the literature: Alutto and Belasco (1972), Sparkes (1981), Bass (1981), Seashore and Abt Associates (1981), Hoy and Miskel (1982), Neidt (1987), and Griffiths (1987).

The finding that the high school respondents in the high shared decision making group were most likely to feel that the planning time had helped them to set realistic objectives is also supported in the literature. Griffiths (1977), Sparkes (1981), and Snyder (1983) focus on the improved quality of decisions resulting from the shared decision making process.

Studies on shared decision making have also focussed on the differences between the perceptions of the administrator and the subordinate. Research indicates that administrators generally have a more positive view and feel that the staff member participants exert more influence than staff perceptions themselves indicate (see Sheeley (1970), Harrison (1981), Erdeljac (1984), and Stuckwisch (1986). The results of the current study indicated that principals were more likely to say that planning was effective in improving morale. They were less likely to feel that planning had improved student attendance or teacher/teacher communication. The differences noted may result from the principals' knowledge of "the big picture" in the area of student attendance contrasted to the teachers' knowledge base. On the other hand, teachers may have a more experiential basis for their conclusions regarding teacher/teacher communication.

Characteristics of Schools by Shared Decision Making Classification

An examination of enrollment data indicated that the largest schools tended to be those with the lowest shared decision making rating. At the high school level, the lowest shared decision making schools were the largest in terms of mean enrollment for the group, the medium shared decision making schools were somewhat smaller, and the highest shared decision making schools had the smallest enrollment. At the elementary school level, the largest schools were also those schools with the lowest shared decision making rating; the high and the medium shared decision making school groups were smaller, having about equal mean enrollments. While these trends were apparent when means for the groups were calculated, the variance within each group was greater than the difference between the groups. The trend would suggest, however, that large schools seem to be less likely to employ a shared decision making model in planning.

The percentage of low-income students at the respective sites was also known. In the elementary school sample, the high decision making schools had the highest percentage of low-income students, while the medium shared decision making schools had the lowest percentage. At the high school level, the medium shared decision making group also included the fewest low-income students, while the low and high shared decision making groups were similar in having larger mean percentages of low-income students. Once again, the variance within each group was greater than the difference between the groups. These results suggest that the poverty level of the school does not dictate whether decision making will occur to a low or high degree.

Analysis of Outcomes by Shared Decision Making Classification (Differences Between the Shared Decision Making Groups)

Reading Achievement

Mean Reading N.C.E.s. Among the elementary schools in the sample, highest mean reading achievement occurred in the medium shared decision making group.

The next highest group in terms of mean reading achievement was the low shared decision making group. All three shared decision making groups were similar in their mean N.C.E.s on this outcome. At the high school level, the highest reading mean was found in the high shared decision making group, and the lowest values were noted in the low group. The differences between the three shared decision making groups on reading achievement outcomes were investigated using One-way Analysis of Variance (ANOVA). None of the F-values was significant.

Mean Reading N.C.E. Gains. When gains in reading mean N.C.E.s were compared by shared decision making group, it was clear that the medium shared decision making group performed best at both the elementary and high school levels and that this was true for 1986-1987 and 1987-1988. There was no consistency between years on the gains or losses for the shared decision making groups. Sometimes the low shared decision making group performed better than the high shared decision making group and in other years this trend was reversed. When the mean reading gains are cumulated, it becomes evident that the medium group at both the elementary and high school levels performed the best. At the elementary school level these values were: Medium (.58), Low (-.872), and High (-1.999). At the high school level these values were: Medium (1.1), High (-.073), and Low (-.346). When the significance of the differences between the three shared decision making groups on reading achievement gains or losses was examined using One-way ANOVA, none of the F-values was found to be significant.

Mathematics Achievement

Mean Mathematics N.C.E.s. At the elementary school level, the medium shared decision making group exhibited the higher mean math achievement. Depending on the year of analysis, either the low or high shared decision making group came next in rank order of performance. At the high school level, both medium and high shared decision making groups demonstrated higher mean math N.C.E.s with the high shared decision making group having the highest mean math N.C.E.s. Once again, One-way ANOVA indicated that none of the F-values was significant.

Mean Mathematics N.C.E. Gain. The medium and high shared decision making groups made greater gains than the low group at both the elementary and high school levels. There was no consistency between years on the gains or losses for the shared decision making groups. Significant differences between the shared decision making groups were evident in 1987-1988 high school math gains, with the medium shared decision making group making the greatest gains, followed by the high shared decision making group. The low shared decision making group exhibited losses during this period. A tabulation of the mean two-year cumulative math gains shows that the medium group at both the elementary and high school levels performed the best. At the elementary school level these values were: Medium (1.375), High (1.06), and Low (-.445). At the high school level these values were: Medium (.434), High (.074), and Low (-.600).

Attendance

Mean Percentage of Attendance. At both the elementary and high school levels the low shared decision making group recorded the poorest attendance. At the elementary level, the highest mean attendance rate was found in the high shared decision making group. All attendance rates were relatively close, however. At the high school level, the highest mean attendance rate was found in the medium shared decision making schools. Significant differences by shared decision making group were evident for 1988 high school attendance only.

Mean Attendance Gains. The low shared decision making group again ranked lowest, this time in attendance gains. At the elementary school level the medium shared decision making group showed the best year-to-year attendance gains. At the high school level, attendance gains were highest for the medium shared decision making group in the 1986-87 school year, and for the high shared decision making group in the 1987-88 school year. The two-year tabulation of gains indicated the following values at the elementary school level: Medium (-.586), High (-.860), and Low (-1.135). The loss in elementary attendance was least in the Medium group (which, it should be noted, differed only slightly from the High group mean). The Low group showed the greatest loss. At the high school level these values were: Medium (.433), High (-4.75), and Low (-5.15). Only the Medium high school group experienced a true gain; the other groups had losses. The Medium group at both elementary and high school levels, therefore, performed best in attendance gains, although One-way ANOVA revealed that none of the F-values was significant.

Summary

The low shared decision making group never performed the best in any of the comparisons of achievement or attendance averages for three years. In terms of gains, reading achievement, mathematics achievement, and attendance, the medium shared decision making group consistently performed the best. This was true at both the high school and elementary school levels.

It becomes apparent from these data trends that the medium shared decision making group was most effective in obtaining the desired outcomes. One can not automatically conclude, however, that more is better. In many cases the high shared decision making groups did not perform as well as the low shared decision making groups.

It seems that a school can have too little or too much shared decision making, and that perhaps contingency models of leadership should be considered. Variables such as maturity and experience level of the participants, area of decision making, leadership style of the administrator, and "interest" of the participant, all play a potential role in the effectiveness of the decision making approach. Is it possible that the medium shared decision making schools are considering some or all of these elements in their utilization of shared decision making techniques?

It is important to note that significant differences between the three shared decision making groups were evident in only two of the areas compared: 1988 high school attendance and 1987-88 high school math gains. During 1988, the

medium shared decision making group had the highest attendance, while the low shared decision making group had the lowest attendance at the high school level. During 1987-88, the medium shared decision making group had the highest gains, and the low shared decision making group demonstrated the greatest losses.

The 1987-88 school year differed in several ways from the other two years in the analysis. During this period of time, there was a 19-day work-stoppage that included the entire month of September; only two days of preschool year planning were scheduled compared to five days the previous year; and funding which had been provided for follow-up planning outside of the regular school day in spring 1987 was not available in spring 1988. Further, it is noted that enrollment has decreased systemwide from 1986.

One might ask, why may have these factors impacted the high school level more than the elementary school level? Achievement data for high schools was determined by the Tests of Achievement and Proficiency which are administered in the fall, while the elementary achievement data is based on the Iowa Tests of Basic Skills given in the spring. The work-stoppage would most probably have affected the high school test results more strongly than the elementary school achievement test results. It may have fostered a negative attitude toward regular school attendance on the part of students who were older and more independent than elementary pupils. Finally, the sample size of the high school set was significantly smaller than the elementary school sample (16 schools versus 47 schools). In view of these confounding factors and the lack of significant differences in any of the other areas compared, it is difficult to determine the true significance of the high school and elementary school differences. Still, the results demonstrated in these two areas were in agreement with the trends noted earlier.

Determining the Strength of the Shared Decision Making Rating as a Predictor of Outcomes

Reading Achievement

Multiple regression analysis was utilized to determine how well the shared decision making rating, percent of low income students, and school enrollment or attendance predicted the dependent variable of mean N.C.E. reading achievement. The coefficients of determination ranged from .33 to .61 over three years. High school coefficients of determination were higher than those for elementary schools. The best single predictor of reading achievement at both the elementary and the high school levels across all years was the percent of low-income students. The correlation of low income with reading achievement at the elementary school level was -.650 and -.712 at the high school level. Neither the shared decision making rating nor enrollment was significant as a predictor of reading achievement. Attendance was found to be a significant predictor only for elementary reading means in 1988.

Mathematics Achievement

Multiple regression analysis also indicated the extent that the same variables as above predicted mean N.C.E. mathematics achievement. The coefficients of determination ranged from .36 to .65 over three years. High school coefficients were higher than elementary school coefficients of determination.

Here, too, the best predictor of mathematics achievement at both levels across all years was the percent of low income students. The correlation of this variable with math achievement was -.623 at the elementary school level and -.708 at the high school level. The shared decision making rating and enrollment were not significant as predictors of mathematics achievement. Attendance was a significant predictor only for elementary mathematics means in 1988 and 1986.

Attendance

Multiple regression analysis was also used to determine how well the shared decision making rating, enrollment, and percent of low income students predicted the dependent variable of percent of student attendance. In 1988, the coefficients of determination were not significant. In 1987 and 1986, the elementary coefficients were significant but very small (.19 and .22). Only in 1987 was a coefficient of determination (.62) significant in the prediction of high school attendance. The best single predictor of attendance at both levels across all years except high school in 1988 was the percent of low income students. The correlation of low income with student attendance was -.298 at the elementary school level and .118 at the high school level. Neither the shared decision making rating nor enrollment was significant as a predictor of student attendance.

Gains

None of the regression equations was found to be significant in predicting gains in reading, mathematics, or attendance.

Conclusions

Shared Decision Making and Percent of Low-Income Students

The descriptive data show that the medium shared decision making schools were also those that had the lowest percentage of low-income students. Regression analysis indicated repeatedly that the percent of low-income students in a school was the best single predictor of the targeted outcomes: reading achievement, mathematics achievement, and percent of student attendance. Shared decision making rating was not found to be a significant predictor in the accomplishment of these outcomes. Do schools with lower percentage of low-income students tend to adopt a moderate shared decision making approach more frequently than do schools in lower income areas? Does the shared decision making approach make a difference, or is poverty level the major factor impacting on student achievement or targeted outcomes? These are some of the questions that remain unanswered. Further analysis of the schools in the medium shared decision making groups could help determine answers to some of these questions.

Perceptions Versus Realities

In discussing the characteristics of shared decision making, it was commented that, at the elementary school level, the high shared decision making group found shared planning to be very effective in improving test scores. When the gains across years are examined, however, the high shared decision making group had the greatest losses in reading and had fewer gains than the medium

shared decision making group in mathematics. In terms of 1988 elementary reading scores, the high shared decision making group had the lowest mean N.C.E. values of the three decision making groups. When 1988 math achievement is considered, it was the medium shared decision making group that had the highest mean mathematics N.C.E.

At the high school level, participants in the high shared decision making group perceived the planning activities to be effective in improving student attendance. When the two-year cumulative gain is examined, however, the medium shared decision making group was found to have made the only gains, and the high shared decision making group had declining attendance.

These findings would suggest that the process of shared decision making does improve teacher morale and school climate. Morale may be so good that it obscures the realities of poor performance.

"Participation is one of the most misunderstood ideas that have emerged from the field of human relations. It is praised by some, condemned by others, and used with considerable success by still others." In his comments on this author, Stuckwisch (1986) notes that McGregor "cautioned that there is no implication that more participation is better than less; the degree of participation which will be suitable depends on a variety of factors, such as the problem or issue, the attitudes and past experiences of the subordinates, and the manager's skills."

Does Degree of Shared Decision Making Affect Accomplishment of Systemwide Objective Outcomes?

The results of this study indicated that, with the exception of 1988 attendance and 1987-88 mathematics mean N.C.E.s at the high school level, there were no significant differences in outcomes between shared decision making groups. During 1988, the medium shared decision making group had the highest attendance, while the low shared decision making group had the lowest attendance at the high school level. From 1987 to 1988, the medium shared decision making group had the highest math gains, and the low shared decision making group demonstrated the greatest losses. The overall trends suggests that medium shared decision making was the most effective in achieving gains in reading, mathematics, and attendance. One cannot automatically conclude, however, that more shared decision making and planning is better. In a number of comparisons, the high shared decision making group did not perform as well as the low shared decision making groups. It seems that one can have too little or too much shared decision making, and that perhaps contingency models of leadership should be considered. Variables such as maturity and the experience level of the participants, areas of decision making, leadership style of the administrator, and interests, all play a potential role in the effectiveness of the decision making approach.

Characteristics of Shared Decision Making Groups

Participants who indicated that shared decision making took place to a great extent also reported improved communication and emphasized the helpfulness of the shared decision making process. These correlations are well supported by the literature.

The low shared decision making groups tended to describe the planning meeting agendas as being prepared by the administrator, while the high shared decision making groups indicated a team approach in the majority of cases, and the medium shared decision making group utilized a mixed approach. This would also tend to indicate situational endorsement of the shared decision making model by the medium shared decision making schools.

High shared decision making groups also described planning meetings as an ongoing process, while the low shared decision making schools had a greater tendency to view it as a discrete event.

Lipham (1981) notes that different decision approaches must be utilized since, "excessive involvement causes frustration, whereas underinvolvement creates hard feelings. The sensitive principal always strives for a condition of equilibrium."

Shared decision making may best be viewed as a tool rather than a philosophy, as Wadia (1980) comments:

> Participatory management is but a tool in the management bag. An executive proclaiming to be a "participative manager" is tantamount to a carpenter proclaiming to be a 'hammer.' Obviously, a carpenter has and needs a variety of tools in achieving objectives. Similarly, a manager needs a variety of techniques to achieve goals.

Alutto and Belasco state that shared decision making may not be a workable approach for all segments of the school population. Their research indicates that different personnel within the same system may evidence behaviors going from "decisional deprivation" to "decisional saturation." In fact, teachers experiencing the most conflict within the system also experience the most decisional deprivation.

The factor of percent of low income students in attendance was the most powerful predictor of student achievement and attendance outcomes. The interaction of this variable with shared decision making rating should be explored further.

Directions for Future Research

- Future studies should emphasize refining the shared decision making index as a method of classifying schools and confirming the results of the present study with another sample. Contingency management theory seems promising as a source of factors which would serve to define the shared decision making model and its projected effects on outcome variables.

- A study of other characteristics of the medium shared decision making schools would be of interest.

- The consistency of the association of percent of low-income students with shared decision making group is an additional area for investigation.

Koehler (1974) points up the mixed motives and emotions of teachers that lie behind their expressed desires for more participation in decision making.

> School officials must acknowledge the variability of teacher demands for decisional participation. Any planned system of shared decision-making must recognize that increasing demand for decisional participation reflects the wishes of only a segment of the teacher population. Some teachers will desire a decrease in their levels of participation; others will prefer the decisional status quo. Even those demanding increased participation may be evidencing as much a reaction against bureaucratic impersonalization as an attempt for more perceptual input.

Current reform movements have emphasized the utilization and expansion of shared decision making in school-based management. Investigation of the impact of this approach on systemwide objectives focusing on student outcomes is essential. Blanket utilization of this approach may not be the answer for all.

Table 1

School Planning Follow-Up II
Spring 1988

Schools Which Returned Questionnaires

Elementary Schools (Districts 1-10) (28 schools)

	Returns
Andersen	2
Bell	4
Burr	4
Cather	5
Cooper Primary	5
Edgebrook	4
Gale	4
Garvy	4
Hammond	4
Hefferan	4
Howe	4
Washington Irving	4
Irving Park	3
Jungman	3
Kanoon	3
LeMoyne	5
Lovett	5
Mason	5
Medill	4
Monroe	5
Mozart	5
Nash	6
Reinberg	2
Saucedo	3
Schneider	3
Solomon	5
O.A. Thorp	4
Whittier	2
	111

Table 1 (cont.)

Elementary Schools (Districts 11-20) (19 schools)

	Returns
Aldridge	1
Attucks	6
Banneker	2
Carroll	4
Clay	5
Edwards	4
Evers	1
Fleming	2
Higgins	3
Kipling	3
Morrill	5
Overton	6
Parkside	3
Raster	4
Shoop	3
Stagg	4
Taylor	4
Van Vlissingen	3
Woodson South	4
	68

High Schools (Districts 31-33) (16 schools)

(District 31)

	Returns
Clemente	4
Kelvyn Park	4
Mather	4
Schurz	3
Senn	5

(District 32)

	Returns
Crane	2
Farragut	6
Juarez	4
Manley	2
Tilden	4

(District 33)

	Returns
Bowen	4
Calumet	2
Corliss	5
Harper	4
Hubbard	6
Hyde Park Academy	4

Elementary Schools = 47
High Schools = 16
Total Schools = 63

Returns 179
+63
Total Returns = 242

Table 1 (cont.)
Selected Characteristics of
Elementary Schools in the Sample

Elementary SCHOOL	UNIT	DIST	ENROLL	BLACK	HISP	WHITE	ASIAN	LOWINC	NONENGL	NOR3	NOR8	RGE3	MGE3	RGE6	MGE6	RGE8	MGE8
1	2060	6	788	10.2	79.9	9.1	0.9	60.1	27.8	59	59	3.1	3.6	5.3	6.9	8.3	8.7
2	2100	11	724	100.0	0.0	0.0	0.0	92.7	0.0	69	24	3.0	3.4	5.6	6.3	8.3	8.9
3	2270	3	678	11.5	24.6	50.8	12.1	16.5	4.6	68	45	4.9	4.7	9.0	8.6	10.8	11.0
4	2530	6	492	4.3	88.0	7.3	0.0	51.5	23.2	48	35	3.4	3.8	6.4	6.7	9.5	9.7
5	2650	15	260	39.1	10.1	49.6	1.2	3.9	1.2	24	43	4.2	3.9	7.7	7.7	9.4	8.8
6	2710	20	521	100.0	0.0	0.0	0.0	67.5	0.0	58	47	3.6	3.7	5.4	6.0	9.1	8.1
7	2790	20	522	34.0	14.9	51.0	0.2	19.9	7.7	57	43	3.9	4.1	6.8	7.2	8.2	8.9
8	2890	8	978	0.1	97.7	2.2	0.0	43.2	43.9	72	0	3.1	3.5	6.1	6.4	0.0	0.0
9	3170	1	203	11.9	16.3	52.0	15.3	4.9	10.3	22	12	4.8	5.1	7.8	8.4	9.1	9.6
10	3200	12	683	23.2	31.0	42.6	3.0	15.8	11.7	77	84	3.7	3.6	6.0	6.2	8.5	8.4
11	3370	10	786	12.1	66.0	18.5	3.4	54.1	39.2	31	70	4.6	4.6	6.6	7.1	9.0	9.3
12	3480	2	929	60.5	26.7	9.9	2.7	53.1	22.0	84	78	3.3	3.7	6.2	6.5	7.7	8.1
13	3510	1	317	28.3	4.4	59.4	7.9	2.4	1.9	40	22	4.8	4.3	7.0	7.7	8.6	9.3
14	3681	12	134	46.8	6.4	45.4	1.4	31.0	0.0	17	20	3.9	4.2	7.1	7.7	8.5	9.7
15	3750	8	966	2.0	96.1	1.9	0.0	56.6	46.3	125	0	2.8	3.4	5.7	5.9	0.0	0.0
16	3910	7	706	100.0	0.0	0.0	0.0	61.4	0.0	90	68	3.0	3.1	5.6	6.2	8.2	8.0
17	4060	4	1250	99.2	0.3	0.5	0.0	55.1	0.0	155	80	3.3	3.5	6.1	6.4	8.0	8.7
18	4140	9	473	43.7	48.1	5.1	3.0	43.2	13.3	34	31	2.3	3.1	6.2	6.5	8.2	8.8
19	4150	4	519	20.2	72.0	7.4	0.4	48.4	17.3	71	62	2.9	3.3	5.6	5.9	8.0	8.0
20	4230	8	656	1.7	97.5	0.8	0.0	55.1	58.4	37	0	3.5	3.7	6.1	7.2	0.0	0.0
21	4250	8	1113	4.3	80.0	15.5	0.2	44.2	11.6	0	253	0.0	0.0	6.7	7.0	8.2	8.9
22	4350	18	311	100.0	0.0	0.0	0.0	23.9	0.0	31	27	3.9	3.8	7.0	6.9	8.5	8.8
23	4440	3	413	33.8	46.8	15.1	3.1	36.1	13.4	25	23	2.8	3.3	5.9	6.5	8.2	7.3
24	4530	4	527	73.4	17.0	7.1	2.5	22.6	6.7	64	52	3.4	3.4	6.6	6.6	8.1	8.2
25	4650	10	1600	89.4	9.3	1.1	0.3	59.5	5.8	167	142	3.1	3.2	5.6	5.9	7.7	8.3
26	4810	9	640	100.0	0.0	0.0	0.0	81.3	0.0	116	0	2.9	3.3	0.0	0.0	0.0	0.0
27	4850	5	965	5.1	70.9	22.4	1.1	29.8	27.7	92	78	3.1	3.3	6.4	6.6	8.2	8.3
28	4880	15	1108	6.1	68.2	24.6	1.0	17.8	14.1	113	112	3.6	4.0	6.3	6.7	8.6	8.8
29	5000	5	742	4.0	84.4	10.5	1.0	43.9	30.9	66	64	2.6	3.0	6.0	6.5	8.0	8.5
30	5050	7	1243	99.3	0.6	0.0	0.2	51.0	0.2	127	89	3.1	3.3	5.5	6.0	8.2	8.2
31	5300	17	680	100.0	0.0	0.0	0.0	66.7	0.0	80	57	3.4	3.3	6.0	6.5	8.2	8.4
32	5540	15	493	100.0	0.0	0.0	0.0	53.8	0.0	0	80	0.0	0.0	5.7	6.5	8.1	8.3
33	5600	4	451	24.6	19.5	50.3	5.6	12.9	11.3	30	29	4.1	4.3	7.2	7.4	9.1	9.7
34	5790	5	421	41.0	40.6	17.3	0.0	68.8	7.5	60	31	3.0	3.3	6.4	6.4	8.6	8.7
35	5930	18	636	99.7	0.0	0.3	0.0	43.2	0.0	73	66	3.6	3.4	6.2	6.6	7.8	8.4
36	5980	1	331	20.1	12.7	41.3	26.0	8.7	10.7	27	37	3.7	4.3	7.6	7.5	9.4	10.0
37	6150	19	588	4.5	57.2	38.3	0.0	40.8	16.6	60	43	4.4	4.4	7.1	7.5	9.0	9.0
38	6190	1	689	48.1	10.7	32.0	8.2	33.5	0.4	79	58	4.1	4.3	7.3	7.7	9.4	9.7
39	6260	20	1074	100.0	0.0	0.0	0.0	56.1	0.0	105	77	2.9	3.1	5.1	5.5	7.4	7.9
40	6450	8	545	0.4	94.6	5.0	0.0	43.0	54.2	45	0	2.9	3.3	0.0	0.0	0.0	0.0
41	6730	9	586	100.0	0.0	0.0	0.0	62.8	0.0	65	45	3.0	3.2	5.6	6.2	8.0	8.3
42	6880	16	682	100.0	0.0	0.0	0.0	64.7	0.0	89	33	3.3	3.5	6.0	6.7	8.2	8.7
43	6960	13	904	100.0	0.0	0.0	0.0	66.3	0.0	145	0	3.9	3.7	6.1	5.9	0.0	0.0
44	7210	18	652	99.0	1.0	0.0	0.0	46.3	0.0	68	56	3.6	3.6	6.0	6.5	9.0	8.8
45	7760	16	847	99.4	0.5	0.1	0.0	52.5	0.0	96	58	3.3	3.5	6.4	6.9	8.8	8.9
46	7820	14	707	100.0	0.0	0.0	0.0	76.	0.0	151	0	3.3	3.5	0.0	0.0	0.0	0.0
47	7990	18	314	99.7	0.3	0.0	0.0	25.5	0.0	29	35	3.7	3.8	6.8	6.9	8.3	9.3
			31847	55.2	31.8	11.3	1.5	47.7	12.3	3241	2368	3.4	3.6	6.2	6.6	8.4	8.7
Citywide			300,793		25.4		2.8		10.5			3.4		6.2		8.2	
(Elementary only)				59.3		12.5		42.6					3.6		6.6		8.5

SCHOOL	88 ATTEND
1	91.5
2	91.4
3	94.5
4	93.1
5	93.6
6	92.1
7	93.7
8	93.4
9	92.9
10	91.8
11	95.8
12	94.1
13	93.9
14	95.3
15	95.0
16	94.1
17	92.4
18	92.2
19	89.6
20	94.2
21	93.9
22	95.0
23	89.1
24	91.8
25	91.4
26	89.9
27	92.5
28	93.9
29	92.0
30	91.7
31	93.2
32	92.4
33	89.6
34	91.5
35	91.7
36	93.3
37	94.1
38	94.3
39	91.8
40	91.5
41	90.6
42	91.4
43	90.3
44	94.0
45	92.3
46	92.0
47	93.8

Table 1 (cont.)

Selected Characteristics of High Schools in the Sample

School	District	88 enroll n	Black %	Hispanic %	White %	Asian %	% Low Inc. %	LEP %
1	33	2002	51.8	47.6	.6	0	41.8	13.6
2	33	1461	100.0	0	0	0	46.1	0
3	31	2874	15.8	79.8	2.7	1.7	55.8	14.2
4	33	1797	99.7	.3	0	0	41.4	0
5	32	1192	100.0	0	0	0	71.8	.1
6	32	2179	48.7	50.0	1.2	0	52.9	11.6
7	33	1102	100.0	0	0	0	57.3	0
8	33	1294	38.4	21.5	39.2	.9	29.5	1.2
9	33	2422	100.0	0	0	0	52.9	0
10	32	1881	.8	97.1	2.1	.1	45.9	16.9
11	31	1576	5.8	86.7	6.5	1.1	45.8	10.5
12	32	917	99.8	.2	0	0	65.1	0
13	31	1782	11.2	13.8	52.9	22.0	18.0	6.1
14	31	3135	17.5	53.8	25.7	3.0	34.6	10.7
15	31	2222	38.6	21.1	15.0	25.3	43.3	18.8
16	32	1618	83.8	11.1	5.1	0	56.2	2.9
Citywide (Highschool)		111,891	62.0	20.6	13.7	3.8	45.6	

School	9 (N) READ n	9 READ %ile	10 (N) READ n	10 READ %ile	11 (N) READ n	11 READ %ile	12 (N) READ n	12 READ %ile
1	481	27	426	28	293	28	331	23
2	400	22	315	17	223	22	204	20
3	802	19	563	22	496	22	305	23
4	360	31	351	26	328	30	287	25
5	302	16	284	17	171	19	72	20
6	560	23	330	20	256	22	173	20
7	292	21	238	22	198	26	150	21
8	347	45	341	47	221	41	224	44
9	656	46	509	47	408	51	409	50
10	534	31	389	34	372	28	310	30
11	417	23	357	22	276	24	253	25
12	211	19	173	19	142	19	86	21
13	412	45	389	47	366	51	350	44
14	689	25	573	28	508	28	483	32
15	413	29	401	28	400	26	355	23
16	465	21	314	19	224	22	160	21

School	88 ATTEND %	9 (N) MATH n	9 MATH %ile	10 (N) MATH n	10 MATH %ile	11 (N) MATH n	11 MATH %ile	12 (N) MATH n	12 MATH %ile
1	86.3	481	25	426	29	293	28	331	30
2	66.5	400	19	315	18	223	18	204	24
3	80.1	802	19	563	25	496	21	305	30
4	77.4	360	28	351	29	328	28	287	30
5	76.7	302	12	284	21	171	21	72	21
6	88.2	560	21	330	21	256	18	173	24
7	85.8	292	16	238	21	198	21	150	24
8	87.4	347	39	341	40	221	37	224	37
9	76.3	656	44	509	43	408	48	409	48
10	83.4	534	28	389	32	372	32	310	37
11	79.9	417	21	357	21	276	28	253	34
12	80.3	211	16	173	18	142	21	86	24
13	72.7	412	44	389	43	366	48	350	45
14	77.8	689	21	573	29	508	28	483	34
15	81.2	413	28	401	32	400	28	355	37
16	83.2	465	21	314	21	224	25	160	24

Table 3

School Planning Follow-Up II
Spring 1988

Responses to School Planning Questionnaire by Level of School
Elementary and High School

	All (N=242) %	Elem. (N=179) %	High (N=63) %
1. Attended Institute in 8/87:			
Yes	80.7	80.1	82.3
No	19.3	19.9	17.7
Missing cases = 4			
2. School has Action Plan:			
Yes	99.6	99.4	100.0
No	.4	.6	-
Missing cases = 10			
3a. Planning activities that took place in 1987-88 school year:			
School planning committee	92.6	93.3	91.9
Staff development committee	67.8	62.0	85.5
Grade-level planning committee(s)	68.2	83.8	25.8
Staff inservice meetings on planning	80.6	79.3	87.1
Review of progress on objectives	69.0	70.9	64.5
Subject-area planning committee	60.3	57.5	69.4
3b. Respondent took part in planning activities listed:			
School planning committee	74.0	74.3	74.2
Staff development committee	47.1	40.8	66.1
Grade-level planning committee(s)	46.3	59.2	9.7
Staff inservice meetings on planning	61.2	59.8	66.1
Review of progress on objectives	52.1	53.6	48.4
Subject-area planning committee	42.6	40.2	50.0
4. When planning meetings were held:			
Beginning of school year	91.7	94.4	87.1
End of first semester	45.0	49.2	33.9
Toward end of second semester	32.2	35.8	22.6
Other times	45.5	42.5	56.5
Never	.4	.6	--

Note: Missing cases apply to "All" column.
N.S. = Difference between elementary and high school is not significant.
Sig. = Significance, $p \leq .05$.

Table 2

School Planning Follow-Up II
Spring 1988

School Planning Questionnaire Returns by Position of Respondent

	n	%
Principal	42	17.4
Teacher	175	72.3
Assistant Principal	16	6.6
Counselor	3	1.2
Not identified	6	2.5
Total	242	100.0

Table 3 (cont.)

	All (N=242) %	Elem. (N=179) %	High (N=63) %
5. Approximate number of participants at planning meetings:			
1-5 participants	13.3	14.9	8.6
6-10	36.1	34.9	39.7
11-15	24.9	25.7	22.4
16-20	10.3	12.0	5.2
Over 20	15.0	12.6	22.4
Missing cases = 9			
6. Usual participants in planning meeting:			
A. Principal			
Always	65.1	66.3	61.5
Usually	33.0	32.5	34.6
Seldom	1.8	1.2	3.8
Missing cases =24			
B. Teachers			
Always	81.7	81.3	83.1
Usually	17.4	18.1	15.3
Seldom	.9	.6	1.7
Missing cases =12			
C. Career Service			
Always	30.7	29.1	35.3
Usually	38.7	41.7	29.4
Seldom	30.7	29.1	35.3
Missing cases =105			
D. Parents			
Always	10.3	12.1	3.7
Usually	38.9	40.4	33.3
Seldom	50.8	47.5	63.0
Missing cases =116			
E. Others			
Always	15.4	28.6	33.3
Usually	61.5	57.1	66.7
Seldom	23.1	14.3	--
Missing cases =229			

Table 3 (cont.)

	All (N=242) %	Elem. (N=179) %	High (N=63) %
7. Who usually set agenda?			
Principal	12.7	16.2	1.7
Principal and other administrator(s)	24.5	22.9	29.3
Assistant principal	.4	--	1.7
Staff designee with/without principal	8.4	7.8	10.3
Teachers	2.1	2.2	1.7
Planning team (prin., teachers, career service, other)	46.8	46.4	48.3
Other	3.4	4.5	3.4
Missing cases = 5			
8. Topics discussed at planning meetings:			
Progress toward objectives	86.0	91.1	74.2
School organization	73.6	70.4	85.5
How to plan	28.1	30.2	22.6
School needs	83.1	84.9	79.0
Teacher attendance	69.0	70.4	66.1
Student attendance	83.5	83.3	85.5
Parent activities	50.8	54.7	40.3
Transition to next level	36.8	39.7	29.0
Counseling	28.1	24.0	40.3
Reading	81.0	89.9	58.1
Mathematics	76.9	85.5	53.2
English, Language Arts	45.9	45.3	48.4
Science	50.4	55.3	37.1
Social Studies	45.5	47.5	40.3
Art	38.8	42.5	29.0
Music	28.1	27.4	30.6
Gym	20.2	16.8	30.6
School beautification	57.4	60.3	50.0
Dropouts, failure reduction	42.1	29.6	79.0
Discipline	75.6	77.7	72.6
Needs of LEP students	23.1	23.5	22.6
Needs of Special Education students	32.6	29.1	45.2
School morale, climate	68.6	67.6	72.6
Computer education	29.3	29.6	29.0
Achievement testing	67.8	69.3	64.5
Other local school emphasis	17.4	16.2	21.0

Table 3 (cont.)

	All (N=242) %	Elem. (N=179) %	High (N=63) %
9. Shared planning and decision making:			
A. Shared planning took place.			
To a great extent	53.8	54.2	52.5
To a certain extent	45.0	44.6	45.9
Not at all	1.3	1.1	1.6
Missing cases = 4			
B. Plans were communicated across all levels at school.			
To a great extent	66.7	69.3	59.0
To a certain extent	31.2	28.4	39.3
Not at all	2.1	2.3	1.6
Missing cases = 5			
C. Respondent's participation in shared decision making was helpful.			
To a great extent	50.0	48.6	54.2
To a certain extent	47.0	48.6	42.4
Not at all	3.0	2.8	3.4
Missing cases = 6			
D. School plan was modified during year.			
To a great extent	15.0	12.4	22.4
To a certain extent	60.8	62.1	56.9
Not at all	23.8	26.4	19.0
Missing cases = 15			
10. How effective were the planning activities in improving:			
A. Instruction			
(5) Very effective	11.1	13.1	5.3
(4) Effective	58.7	60.1	54.4
(3) Not sure	22.7	20.2	29.8
(2) Not too effective	4.9	4.2	7.0
(1) Not effective	2.7	2.4	3.5
Missing cases = 17			

Table 3 (cont.)

	All (N=242) %	Elem. (N=179) %	High (N=63) %
10. (Continued)			
B. Student attendance			
(5) Very effective	12.6	12.2	13.6
(4) Effective	47.6	47.7	47.5
(3) Not sure	25.1	25.6	23.7
(2) Not too effective	10.8	9.9	13.6
(1) Not effective	3.9	4.7	1.7
Missing cases = 11			
C. Teacher attendance			
(5) Very effective	11.6	10.3	15.5
(4) Effective	40.9	37.9	50.0
(3) Not sure	27.2	30.5	17.2
(2) Not too effective	14.2	14.4	13.8
(1) Not effective	6.0	6.9	3.4
Missing cases = 10			
D. School climate morale			
(5) Very effective	14.7	12.2	21.7
(4) Effective	50.9	52.3	46.7
(3) Not sure	16.8	16.9	16.7
(2) Not too effective	11.2	11.6	10.0
(1) Not effective	6.5	7.0	5.0
Missing cases = 10			
E. Test scores			
(5) Very effective	8.7	9.4	6.8
(4) Effective	49.1	55.0	32.2
(3) Not sure	31.3	28.7	39.0
(2) Not too effective	9.1	7.0	15.3
(1) Not effective	1.3	--	5.1
Missing cases = 12			
		Chi Square = 21.31	
		Sig. = .001	
F. Parent participation			
(5) Very effective	5.6	6.3	3.4
(4) Effective	39.2	42.5	29.2
(3) Not sure	31.5	29.9	36.2
(2) Not too effective	18.1	18.4	17.2
(1) Not effective	5.6	2.9	13.8
Missing cases = 10			
		Chi Square = 12.42	
		Sig. = .01	

Table 3 (cont.)

	All (N=242) %	Elem. (N=179) %	High (N=63) %
10. (Continued)			
G. Principal/teacher communication			
(5) Very effective	23.1	23.7	21.4
(4) Effective	53.7	53.2	55.4
(3) Not sure	14.0	14.5	12.5
(2) Not too effective	6.6	5.2	10.7
(1) Not effective	2.6	3.5	--
Missing cases = 13			
H. Teacher/teacher communication			
(5) Very effective	15.5	16.2	13.6
(4) Effective	58.2	56.6	62.7
(3) Not sure	18.2	20.2	11.9
(2) Not too effective	6.5	6.4	6.8
(1) Not effective	1.7	.6	5.1
Missing cases = 10			
I. School/parent communication			
(5) Very effective	12.2	12.8	10.5
(4) Effective	50.7	52.9	43.9
(3) Not sure	26.2	25.6	28.1
(2) Not too effective	8.3	7.0	12.3
(1) Not effective	2.6	1.7	5.3
Missing cases = 13			
11. Level of <u>agreement</u> with statements about planning:	Agree %	Agree %	Agree %
A. Formal planning has improved the understanding of staff about the systemwide goals and objectives.	90.5	93.6	82.0
Missing cases = 10	Chi Square = 5.76 Sig. = .02		
B. The planning time has helped us to frame and reach realistic objectives.	85.9	86.9	83.1
Missing cases = 15			
C. The planning meetings have helped to improve teacher morale at this school.	69.1	66.1	77.6
Missing cases = 19			

Table 3 (cont.)

11. (Continued)	All (N=242) %	Elem. (N=179) %	High (N=63) %
D. The planning meetings provided a timely opportunity to review our school goals.	92.0	92.8	89.7
Missing cases = 17			
E. Formal group planning helped me to accomplish my goals this year.	76.7	76.8	76.3
Missing cases = 15			
F. The planning meetings have helped us focus on areas in need of improvement and change.	92.9	93.4	91.4
Missing cases = 17			

Table 4

School Planning Follow-Up II
Spring 1988

Elementary Responses to School Planning Questionnaire by Shared Decision Making Group

(Items 1-4 omitted)	All Elem. (N=179) %	Low (N=52) %	Medium (N=71) %	High (N=56) %
5. Approximate number of participants at planning meetings:				
1-5 participants	15.5			
6-10	34.7		N.S.	
11-15	25.5			
16-20	11.9			
Over 20	12.5			
6. Usual participants in planning meeting:				
A. Principal				
Always	65.8	54.2	68.7	74.5
Usually	33.1	43.8	29.9	25.5
Seldom	1.1	2.1	1.5	--
		(Chi Square = 5.39		
		Sig. = .25)		N.S.
B. Teachers				
Always	81.9	70.6	80.9	94.2
Usually	17.6	27.5	19.1	5.8
Seldom	.5	1.7	.9	
		Chi Square = 11.18		
		Sig. = .02		
C. Career Service				
Always	29.1	20.7	37.1	28.9
Usually	41.7	27.6	40.0	52.6
Seldom	29.1	51.7	22.9	18.4
		Chi Square = 10.97		
		Sig. = .03		
		(Missing cases = 78)		

Note: Each questionnaire was grouped according to the low, medium, or high shared decision making classification of the respondent's school.

N.S. = Not Significant
Sig. = Significance, $p \leq .05$

Table 4 (cont.)

	All Elem. (N=179) %	Low (N=52) %	Medium (N=71) %	High (N=56) %
D. Parents				
Always	12.1			
Usually	40.4		N.S.	
Seldom	47.5			
E. Others				
Always	28.6			
Usually	57.1		N.S.	
Seldom	14.3			
7. Who usually set agenda?				
Principal	16.2	15.4	22.5	8.9
Principal and other administrator(s)	22.9	38.5	18.3	12.5
Assistant principal	--	--	--	--
Staff designee with/without principal	7.8	11.5	2.8	10.7
Teachers	2.2	3.8	1.4	1.8
Planning team (prin., teachers, career service, other)	47.2	26.9	50.7	60.7
Other	2.6	3.8	4.2	5.4
		Chi Square = 25.99		
		Sig. = 0.01		
8. Topics discussed at planning meetings:				
Progress toward objectives	91.1	82.7	93.0	94.6
School organization	70.4	71.2	62.0	78.6
How to plan	30.2	26.9	35.2	26.8
School needs	84.9	84.6	84.5	83.9
Teacher attendance	70.4	53.8	74.6	78.6
Student attendance	83.3	73.1	90.1	82.1
Parent activities	54.7	38.5	66.2	55.4
Transition to next level	39.7	36.5	40.8	41.1
Counseling	24.0	17.3	26.8	26.8
Reading	89.9	82.7	93.0	92.9
Mathematics	85.5	73.1	91.5	89.3
English, Language Arts	45.3	46.2	36.6	55.4
Science	55.3	46.2	56.3	62.5
Social Studies	47.5	38.5	47.9	55.4
Art	42.5	32.7	43.7	50.0
Music	27.4	21.2	29.6	30.4
Gym	16.8	17.3	16.9	16.1
School beautification	60.3	48.1	76.1	50.0
Dropouts, failure reduction	29.6	23.1	29.6	33.9

Table 4 (cont.)

	All Elem. (N=179) %	Low (N=52) %	Medium (N=71) %	High (N=56) %
8. Topics discussed at planning meetings: (cont.)				
Discipline	77.7	65.4	78.9	87.7
Needs of LEP students	23.5	28.8	25.4	16.1
Needs of Special Education students	29.1	21.2	33.8	30.4
School morale, climate	67.6	59.6	67.6	75.0
Computer education	29.6	21.2	39.4	25.0
Achievement testing	69.3	57.7	73.2	73.2
Other local school emphasis	16.2	11.5	19.7	16.1
9. Shared planning and decision making:				
A. Shared planning took place.				
To a great extent	54.7	23.5	53.5	85.5
To a certain extent	44.2	72.5	46.5	14.4
Not at all	1.1	3.9	--	--
		Chi Square = 43.85		
		Sig. = .000		
B. Plans were communicated across all levels at school.				
To a great extent	69.8	41.2	70.0	96.4
To a certain extent	28.0	52.9	28.6	3.6
Not at all	2.2	5.9	1.4	--
		Chi Square = 39.05		
		Sig. = .000		
C. Respondent's participation in shared decision making was helpful.				
To a great extent	49.2	25.5	45.1	76.4
To a certain extent	48.1	64.7	54.9	23.6
Not at all	2.7	9.8	--	--
		Chi Square = 37.16		
		Sig. = .000		
D. School plan was modified during year.				
To a great extent	12.2			
To a certain extent	62.7		N.S.	
Not at all	25.0			

Table 4 (cont.)

	All Elem. (N=179) %	Low (N=52) %	Medium (N=71) %	High (N=56) %
10. How effective were the planning activities in improving:				
A. Instruction				
(5) Very effective	12.9	8.3	11.9	18.9
(4) Effective	59.8	47.9	70.1	58.5
(3) Not sure	20.8	31.3	11.9	20.8
(2) Not too effective	4.1	8.3	3.0	1.9
(1) Not effective	2.4	4.2	3.0	--
		(Chi Square = 14.64		
		Sig. = .07)		N.S.
B. Student attendance				
(5) Very effective	12.1			
(4) Effective	47.4			
(3) Not sure	26.2		N.S.	
(2) Not too effective	9.8			
(1) Not effective	4.6			
C. Teacher attendance				
(5) Very effective	10.2	6.0	12.7	11.5
(4) Effective	37.6	30.0	29.6	55.8
(3) Not sure	31.1	34.0	29.6	28.8
(2) Not too effective	14.3	18.0	19.7	3.8
(1) Not effective	6.8	12.0	8.5	--
		Chi Square = 19.70		
		Sig. = .01		
D. School climate, morale				
(5) Very effective	12.1	6.1	11.3	19.6
(4) Effective	51.7	42.9	53.5	60.8
(3) Not sure	17.5	20.4	16.9	11.8
(2) Not too effective	11.5	18.4	9.9	7.8
(1) Not effective	6.9	12.2	8.5	--
		(Chi Square = 14.92		
		Sig. = .06)		N.S.
E. Test scores				
(5) Very effective	9.3	6.0	5.9	17.5
(4) Effective	54.6	40.0	61.8	61.5
(3) Not sure	29.2	38.0	29.4	19.2
(2) Not too effective	6.9	16.0	2.9	1.9
(1) Not effective	--	--	--	--
		Chi Square = 21.08		
		Sig. = .002		

Table 4 (cont.)

	All Elem. (N=179) %	Low (N=52) %	Medium (N=71) %	High (N=56) %
10. (Continued)				
F. Parent participation				
(5) Very effective	6.2			
(4) Effective	42.2			
(3) Not sure	30.5		N.S.	
(2) Not too effective	18.3			
(1) Not effective	2.8			
G. Principal/teacher communication				
(5) Very effective	23.5	6.1	18.3	48.1
(4) Effective	52.9	51.0	66.2	38.5
(3) Not sure	15.1	22.4	11.3	11.5
(2) Not too effective	5.1	12.2	1.4	1.9
(1) Not effective	3.4	8.2	2.8	--
		Chi Square = 41.02		
		Sig. = .000		
H. Teacher/teacher communication				
(5) Very effective	16.1	--	18.3	28.8
(4) Effective	56.3	63.3	53.5	55.8
(3) Not sure	20.8	24.5	22.5	13.5
(2) Not too effective	6.1	12.2	4.2	1.9
(1) Not effective	.6	--	1.4	--
		Chi Square = 22.07		
		Sig. = .005		
I. School/parent communication				
(5) Very effective	12.6			
(4) Effective	52.6			
(3) Not sure	26.2		N.S.	
(2) Not too effective	6.9			
(1) Not effective	1.7			
	Agree %	Agree %	Agree %	Agree %
11. Level of <u>agreement</u> with statements about planning:				
F. The planning meetings have helped us focus on areas in need of improvement and change.	93.4	87.2	92.8	100.0
		Chi Square = 6.56		
(Items 11 A,B,C,D,E omitted, chi square N.S.)		Sig. = .04		

Table 5

School Planning Follow-Up II
Spring 1988

High School Responses to School Planning Questionnaire by Shared Decision Making Group

(Items 1-4 omitted)	All H.S. (N=63) %	Low (N=11) %	Medium (N=29) %	High (N=23) %
5. Approximate number of participants at planning meetings:				
1-5 participants	8.6			
6-10	39.7			
11-15	22.4		N.S.	
16-20	5.2			
Over 20	22.4			
6. Usual participants in planning meeting:				
A. Principal				
Always	61.5	44.4	54.2	75.0
Usually	34.6	44.4	45.8	20.0
Seldom	3.8	11.1	--	5.0
		(Chi Square = 5.76 Sig. = .22)		N.S.
B. Teachers				
Always	83.1	80.0	74.1	91.3
Usually	15.3	20.0	22.2	8.7
Seldom	1.7	--	3.7	--
		(Chi Square = 3.12 Sig. = .524)		N.S.
C. Career Service				
Always	35.3			
Usually	29.4		N.S.	
Seldom	35.3			

Note: Each questionnaire was grouped according to the low, medium, or high shared decision making classification of the respondent's school.

N.S. = Not Significant
Sig. = Significance, a $\leq$ .05

Table 5 (cont.)

	All H.S. (N=63)	Low (N=11)	Medium (N=29)	High (N=23)
6. Continued	%	%	%	%
D. Parents				
Always	3.7			
Usually	33.3		N.S.	
Seldom	63.0			
E. Others				
Always	33.3			
Usually	66.7		N.S.	
Seldom	--			
7. Who usually set agenda?				
Principal	1.7	10.0	--	--
Principal and other administrator(s)	29.3	30.0	37.0	22.7
Assistant principal	1.7	--	--	4.5
Staff designee with/without principal	10.3	20.0	7.4	9.1
Teachers	1.7	--	--	4.5
Planning team (prin., teachers, career service, other)	48.3	30.0	51.9	50.0
Other	3.4	10.0	3.7	9.1
		(Chi Square = 16.44 Sig. = .42)		N.S.
8. Topics discussed at planning meetings:				
Progress toward objectives	74.2	54.4	79.3	78.3
School organization	85.5	72.7	93.1	82.6
How to plan	22.6	9.1	20.7	30.4
School needs	79.0	54.5	79.3	91.3
Teacher attendance	66.1	45.5	62.1	82.6
Student attendance	85.5	81.8	79.3	95.7
Parent activities	40.3	27.3	37.9	47.8
Transition to next level	29.0	27.3	24.1	34.8
Counseling	40.3	27.3	41.4	43.5
Reading	58.1	63.6	65.5	43.5
Mathematics	53.2	45.5	62.1	43.5
English, Language Arts	48.4	54.5	58.6	30.4
Science	37.1	45.5	41.4	26.1
Social Studies	40.3	45.5	31.0	34.8
Art	29.0	36.4	31.0	21.7
Music	30.6	45.5	31.0	21.7
Gym	30.6	45.5	48.3	21.7
School beautification	50.0	45.5	93.1	56.5
Dropouts, failure reduction	79.0	63.6	75.9	69.6

Table 5 (cont.)

	All H.S. (N=63) %	Low (N=11) %	Medium (N=29) %	High (N=23) %
8. Topics discussed at planning meetings: (cont.)				
Discipline	72.6	54.5	75.9	78.3
Needs of LEP students	22.6	27.3	27.6	13.0
Needs of Special Education students	45.2	36.4	51.7	39.1
School morale, climate	72.6	45.5	75.9	78.3
Computer education	29.0	36.4	31.0	21.7
Achievement testing	64.5	36.4	69.0	73.9
Other local school emphasis	21.0	36.4	24.1	13.0
9. Shared planning and decision making:				
A. Shared planning took place.				
To a great extent	52.5	18.2	44.8	73.3
To a certain extent	45.9	72.7	55.2	22.7
Not at all	1.6	9.1	--	--
		Chi Square = 14.82		
		Sig. = .005		
B. Plans were communicated across all levels at school.				
To a great extent	59.0	18.2	65.5	68.2
To a certain extent	39.3	72.7	34.5	31.8
Not at all	1.6	9.1	--	--
		Chi Square = 11.82		
		Sig. = .02		
C. Respondent's participation in shared decision making was helpful.				
To a great extent	54.2	10.0	50.0	77.3
To a certain extent	42.4	80.0	46.4	22.7
Not at all	3.4	10.0	3.6	--
		Chi Square = 13.33		
		Sig. = .01		
D. School plan was modified during year.				
To a great extent	22.4			
To a certain extent	56.9		N.S.	
Not at all	19.0			

Table 5 (cont.)

	All H.S. (N=63) %	Low (N=11) %	Medium (N=29) %	High (N=23) %
10. How effective were the planning activities in improving:				
A. Instruction				
(5) Very effective	5.3			
(4) Effective	54.4			
(3) Not sure	90.8		N.S.	
(2) Not too effective	7.0			
(1) Not effective	3.5			
B. Student attendance				
(5) Very effective	13.6	10.0	21.4	4.5
(4) Effective	47.5	30.0	42.9	63.6
(3) Not sure	23.7	10.0	25.0	27.3
(2) Not too effective	13.6	50.0	7.1	4.5
(1) Not effective	1.7	--	3.6	--
		Chi Square = 18.92		
		Sig. = .02		
C. Teacher attendance				
(5) Very effective	15.5			
(4) Effective	50.0			
(3) Not sure	17.2		N.S.	
(2) Not too effective	13.8			
(1) Not effective	3.4			
D. School climate, morale				
(5) Very effective	21.7	--	21.4	30.4
(4) Effective	46.7	40.0	46.4	47.8
(3) Not sure	16.7	10.0	21.4	17.4
(2) Not too effective	10.0	40.0	3.6	4.3
(1) Not effective	5.0	10.0	7.1	--
		Chi Square = 16.68		
		Sig. = .03		
E. Test scores				
(5) Very effective	6.8			
(4) Effective	32.2			
(3) Not sure	39.0		N.S.	
(2) Not too effective	15.3			
(1) Not effective	5.1			

Table 5 (cont.)

	All H.S. (N=63) %	Low (N=11) %	Medium (N=29) %	High (N=23) %
10. (Continued)				
F. Parent participation				
(5) Very effective	3.4	--	--	10.0
(4) Effective	29.2	27.3	28.6	30.0
(3) Not sure	36.2	18.2	42.9	35.0
(2) Not too effective	17.2	54.5	10.7	10.0
(1) Not effective	13.8	--	17.9	15.0
		Chi Square = 16.53		
		Sig. = .04		
G. Principal/teacher communication				
(5) Very effective	21.4			
(4) Effective	55.4			
(3) Not sure	12.5		N.S.	
(2) Not too effective	10.7			
(1) Not effective	--			
H. Teacher/teacher communication				
(5) Very effective	13.6			
(4) Effective	62.7			
(3) Not sure	11.9		N.S.	
(2) Not too effective	6.8			
(1) Not effective	5.1			
I. School/parent communication				
(5) Very effective	10.5			
(4) Effective	43.9			
(3) Not sure	28.1		N.S.	
(2) Not too effective	12.3			
(1) Not effective	5.3			
	Agree %	Agree %	Agree %	Agree %
11. Level of <u>agreement</u> with statements about planning:				
B. The planning time has helped us to frame and reach realistic objectives.	83.1	50.0	85.7	95.5
		Chi Square = 10.44		
(Items 11 A,C,D,E,F omitted, chi square N.S.)		Sig. = .005		

Table 6A

Regression of Elementary Reading Achievement (88 R) on Percent of Low-Income Students (88 LOW), Shared Decision Making Index (RATE), and Enrollment (88 ENR)

Source	Sum of Squares	Deg. of Freedom	Mean Squares	F-Ratio	Prob>F
Model	1069.933	3	356.644	11.388	0.000
Error	1346.669	43	31.318		
Total	2416.602	46			

Coefficient of Determination	0.443
Coefficient of Correlation	0.665
Standard Error of Estimate	5.596
Durbin-Watson Statistic	1.920

Variable Name	Coefficient	Std. Err. Estimate	t Statistic	Prob > t
Constant	56.875	3.150	18.058	0.000
88 LOW	-0.199	0.043	-4.626	0.000
RATE	0.070	1.083	0.065	0.947
88ENR	-0.004	0.003	-1.205	0.233

Table 6B

Regression of Elementary Mathematics Achievement (88 M) on Percent of Low-Income Students (88 LOW), Shared Decision Making Index (RATE), and Enrollment (88 ENR)

Source	Sum of Squares	Deg. of Freedom	Mean Squares	F-Ratio	Prob>F
Model	1496.985	3	498.995	11.066	0.000
Error	1938.950	43	45.092		
Total	3435.935	46			

Coefficient of Determination	0.436
Coefficient of Correlation	0.660
Standard Error of Estimate	6.715
Durbin-Watson Statistic	1.978

Variable Name	Coefficient	Std. Err. Estimate	t Statistic	Prob > t
Constant	60.334	3.779	15.965	0.000
88 LOW	-0.230	0.052	-4.442	0.000
RATE	1.175	1.299	0.904	0.626
88ENR	-0.005	0.004	-1.428	0.157

Table 6C

Regression of Elementary Reading Achievement (88 R) on Percent of Low-Income Students (88 LOW), Shared Decision Making Index, (RATE), and Attendance (88 ATT)

Source	Sum of Squares	Deg. of Freedom	Mean Squares	F-Ratio	Prob>F
Model	1189.614	3	396.538	13.897	0.000
Error	1226.989	43	28.535		
Total	2416.602	46			

Coefficient of Determination	0.492
Coefficient of Correlation	0.702
Standard Error of Estimate	5.342
Durbin-Watson Statistic	1.862

Variable Name	Coefficient	Std. Err. Estimate	t Statistic	Prob > t
Constant	-63.692	49.307	-1.292	0.200
88 LOW	-0.190	0.040	-4.799	0.000
RATE	-0.190	1.034	-0.184	0.849
88 ATTEND	1.276	0.530	2.406	0.019

Table 6D

Regression of Elementary Mathematics Achievement (88 M) on Percent of Low-Income Students (88 LOW), Shared Decision Making Index, (RATE), and Attendance (88 ATT)

Source	Sum of Squares	Deg. of Freedom	Mean Squares	F-Ratio	Prob>F
Model	1743.643	3	581.214	14.768	0.000
Error	1692.292	43	39.356		
Total	3435.935	46			

Coefficient of Determination	0.507
Coefficient of Correlation	0.712
Standard Error of Estimate	6.273
Durbin-Watson Statistic	1.908

Variable Name	Coefficient	Std. Err. Estimate	t Statistic	Prob > t
Constant	-112.287	57.906	-1.939	0.056
88 LOW	-0.216	0.046	-4.645	0.000
RATE	0.800	1.214	0.659	0.520
88 ATTEND	1.827	0.623	2.933	0.005

Table 6E

Regression of Elementary Attendance (87 ATT) on
Percent of Low-Income Students (87 LOW), Shared Decision Making Index,
(RATE), and Enrollment (87 ENR)

Source	Sum of Squares	Deg. of Freedom	Mean Squares	F-Ratio	Prob>F
Model	22.560	3	7.520	4.148	0.011
Error	77.947	43	1.813		
Total	100.506	46			

Coefficient of Determination	0.224
Coefficient of Correlation	0.474
Standard Error of Estimate	1.346
Durbin-Watson Statistic	2.334

Variable Name	Coefficient	Std. Err. Estimate	t Statistic	Prob > t
Constant	94.413	0.768	123.008	0.000
87 LOW	-0.036	0.011	-3.394	0.002
RATE	0.258	0.258	1.003	0.322
87ENR	0.001	0.001	0.790	0.561

Table 7A

Regression of High School Reading Achievement (88 R) on Percent of Low-Income Students (88 LOW), Shared Decision Making Index, (RATE), and Enrollment (88 ENR)

Variable Name	Coefficient	Std. Err. Estimate	t Statistic	Prob > t
Constant	43.783	7.393	5.922	0.000
88LOW	-0.305	0.085	-3.587	0.003
RATE	2.511	1.406	1.786	0.093
88ENR	0.001	0.002	0.742	0.524

Source	Sum of Squares	Deg. of Freedom	Mean Squares	F-Ratio	Prob>F
Model	331.387	3	110.462	6.289	0.008
Error	210.770	12	17.564		
Total	542.157	15			

Coefficient of Determination	0.611
Coefficient of Correlation	0.782
Standard Error of Estimate	4.191
Durbin-Watson Statistic	2.541

Table 7B

Regression of High School Mathematics Achievement (88 M) on Percent of Low-Income Students (88 LOW), Shared Decision Making Index, (RATE), and Enrollment (88 ENR)

Variable Name	Coefficient	Std. Err. Estimate	t Statistic	Prob > t
Constant	40.514	6.419	6.312	0.000
88LOW	-0.267	0.074	-3.625	0.003
RATE	2.602	1.220	2.132	0.049
88ENR	0.002	0.002	1.185	0.255

Source	Sum of Squares	Deg. of Freedom	Mean Squares	F-Ratio	Prob>F
Model	289.559	3	96.520	7.290	0.005
Error	158.872	12	13.239		
Total	448.431	15			

Coefficient of Determination	0.646
Coefficient of Correlation	0.804
Standard Error of Estimate	3.639
Durbin-Watson Statistic	2.356

Table 7C

Regression of High School Reading Achievement (88 R) on Percent of Low-Income Students (88 LOW), Shared Decision Making Index, (RATE), and Attendance (88 ATT)

Source	Sum of Squares	Deg. of Freedom	Mean Squares	F-Ratio	Prob>F
Model	321.725	3	107.242	5.838	0.011
Error	220.432	12	18.369		
Total	542.157	15			

Coefficient of Determination	0.593
Coefficient of Correlation	0.770
Standard Error of Estimate	4.286
Durbin-Watson Statistic	2.453

Variable Name	Coefficient	Std. Err. Estimate	t Statistic	Prob > t
Constant	48.198	15.773	3.056	0.008
88LOW	-0.322	0.084	-3.848	0.002
RATE	2.204	1.380	1.597	0.129
88ATT	-0.004	0.196	-0.020	0.982

Table 7D

Regression of High School Mathematics Achievement (88 M) on Percent of Low-Income Students (88 LOW), Shared Decision Making Index, (RATE), and Attendance (88 ATT)

Source	Sum of Squares	Deg. of Freedom	Mean Squares	F-Ratio	Prob>F
Model	271.123	3	90.374	6.116	0.009
Error	177.309	12	14.776		
Total	448.431	15			

Coefficient of Determination	0.605
Coefficient of Correlation	0.778
Standard Error of Estimate	3.844
Durbin-Watson Statistic	2.262

Variable Name	Coefficient	Std. Err. Estimate	t Statistic	Prob > t
Constant	47.605	14.146	3.365	0.005
88LOW	-0.291	0.075	-3.876	0.002
RATE	2.185	1.237	1.765	0.096
88ATT	-0.018	0.176	-0.103	0.916

Table 7E

Regression of High School Attendance (87 ATT) on Percent of Low-Income Students (87 LOW), Shared Decision Making Index, (RATE), and Enrollment (87 ENR)

Source	Sum of Squares	Deg. of Freedom	Mean Squares	F-Ratio	Prob>F
Model	228.015	3	76.005	4.318	0.027
Error	211.225	12	17.602		
Total	439.240	15			

Coefficient of Determination	0.519
Coefficient of Correlation	0.720
Standard Error of Estimate	4.195
Durbin-Watson Statistic	2.719

Variable Name	Coefficient	Std. Err. Estimate	t Statistic	Prob > t
Constant	92.310	7.200	12.821	0.000
87LOW	-0.283	0.085	-3.343	0.005
RATE	1.148	1.411	0.813	0.565
87ENR	0.001	0.002	0.312	0.757

Table 8

Correlation Matrix--All Elementary Variables, 1988
(N = 47 Schools)

	88R	88M	88LOW	88ENR	88ATT	88-87R	88-87M	88-87ATT	RATE	PURE RATE
88 R	1.000									
88 M	.917	1.000								
88 LOW	-.650	-.623	1.000							
88 ENR	-.385	-.420	.392	1.000						
88 ATT	.445	.508	-.298	-.065	1.000					
88-87 R	.379	.246	-.028	-.093	.052	1.000				
88-87 M	.256	.322	-.050	-.081	.192	.708	1.000			
88-87 ATT	.067	.062	.253	.010	.375	.090	.069	1.000		
RATE	-.081	.027	.182	-.125	.151	-.006	.183	.256	1.000	
PURE RATE	-.124	-.062	.249	-.073	.157	.116	.248	.194	.906	1.000

Table 9

Correlation Matrix--All High School Variables, 1988
(N = 16 Schools)

	88R	88M	88LOW	88ENR	88ATT	88-87R	88-87M	88-87ATT	RATE	PURE RATE
88 R	1.000									
88 M	.972	1.000								
88 LOW	-.712	-.708	1.000							
88 ENR	.235	.291	-.276	1.000						
88 ATT	-.058	-.070	.118	-.038	1.000					
88-87 R	-.063	-.202	-.203	-.005	.379	1.000				
88-87 M	.304	.356	-.256	.178	.498	.108	1.000			
88-87 ATT	-.534	-.568	.550	-.182	.731	.324	.058	1.000		
RATE	.290	.315	.007	-.288	.101	-.228	.496	-.042	1.000	
PURE RATE	.303	.276	-.137	-.449	.092	.174	.297	-.055	.795	1.000

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Department of Research and Evaluation

SCHOOL PLANNING QUESTIONNAIRE
June 1988

This questionnaire is about planning in your school to meet annual objectives. Please check or circle your answers. Leave an item blank if you do not know.

School _____ Unit _ _ _ _ _ District _ _ Date _/_/_

Person completing form: (please check)

___ Principal ___ Teacher ___ Career Service Other _____

1. Did you attend the Institute for School Planning last August 1987?

___ Yes ___ No

2. Does your school have an Action Plan? ___ Yes ___ No

3. Please check the planning activities listed below that took place in your school this school year:

School had: (check all that apply)	Did you take part? (if yes, check)
___ School planning committee	_____
___ Staff development committee	_____
___ Grade-level planning committee(s)	_____
___ Staff inservice meetings on planning	_____
___ Review of progress on objectives	_____
___ Subject-area planning committee	_____

4. When were planning meetings held? (check all that apply)

___ At beginning of the school year

___ At the end of the first semester

___ Toward the end of the second semester

___ Other times (than above)

___ Never

5. Approximate number of participants at the planning meetings you attended this year? (check one)

___ 1-5 ___ 6-10 ___ 11-15 ___ 16-20 ___ Over 20

6. Who usually took part in the planning meetings? (check and rate all that apply)

	Seldom	Usually	Always
___ Principal	1	2	3
___ Teachers	1	2	3
___ Career Service	1	2	3
___ Parents	1	2	3
___ Others (Who?_____)	1	2	3

7. Who usually set the agenda for the planning meetings? (check one)

___ Principal alone
___ Principal and other administrator(s)
___ Assistant principal
___ Staff designee with/without principal
___ Teachers
___ Planning team (principal, teachers, career service, other)
___ Other _____

8. Topics discussed at the planning meetings you attended included: (check all that apply)

___ Progress toward meeting local school objectives
___ School organization
___ How to plan
___ School needs for coming year
___ Teacher attendance
___ Student attendance
___ Parent activities
___ Transition of students to next ___ level
___ Counseling

Instruction in--

___ Reading
___ Mathematics
___ English
___ Science
___ Social Studies
___ Art
___ Music
___ Gym
___ School beautification
___ Dropouts, failure reduction
___ Discipline
___ Needs of LEP students
___ Needs of Special Education students
___ School morale, climate, motivation
___ Computer education
___ Achievement testing
___ Other local school emphasis: _____

9. Shared planning and decision making involves input from several sources: principals, teachers, others. Please rate the frequency of the following:

	Not at all	To a certain extent	To a great extent
A. Did shared planning take place in your school?	1	2	3
B. Were the plans for the year communicated across all levels at the school?	1	2	3
C. How helpful to you was your participation in shared decision making?	1	2	3
D. Was your school plan modified at any point during the year?	1	2	3

10. How effective were the planning activities this year in improving:

	Not Effective	Not Too Effective	Not Sure	Effective	Very Effective
Instruction	1	2	3	4	5
Student attendance	1	2	3	4	5
Teacher attendance	1	2	3	4	5
School climate, morale	1	2	3	4	5
Test scores	1	2	3	4	5
Parent participation	1	2	3	4	5
Principal/teacher communication	1	2	3	4	5
Teacher/teacher communication	1	2	3	4	5
School/parent communication	1	2	3	4	5
Other: _____	1	2	3	4	5

11. Please check whether you agree or disagree with the following statements:

	Agree (check one)	Disagree
A. Formal planning has improved the understanding of staff about the systemwide goals and objectives.	___	___
B. The planning time has helped us to frame and reach realistic objectives.	___	___
C. The planning meetings have helped to improve teacher morale at this school.	___	___
D. The planning meetings provided a timely opportunity to review our school goals.	___	___
E. Formal group planning helped me to accomplish my goals this year.	___	___
F. The planning meetings have helped us focus on areas in need of improvement and change.	___	___

12. What would you like to see changed in the planning process or activities?

_____

_____

13. Were there any unexpected outcomes that came about as a result of school planning meetings this year?

_____

_____

Please return the completed form in the envelope provided by June 30, 1988. Send to the Department of Research and Evaluation, ASC 6 West (north), 1819 West Pershing Road, Mail Run 95RE, Attention: Planning. Thank you very much for your cooperation.